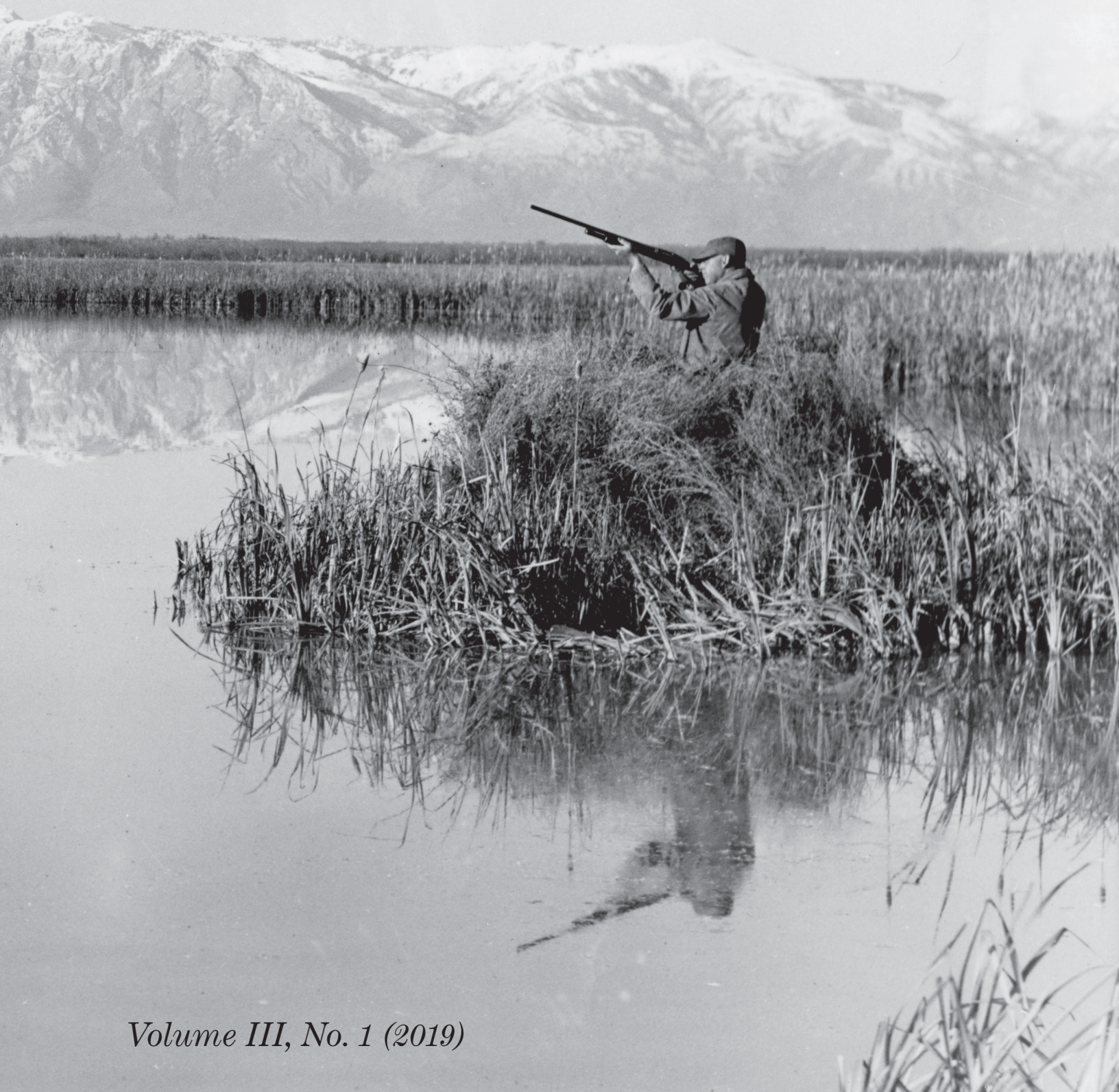


Conservation History

Outdoor Sportsmen and Women



*The mission of the
U.S. Fish and Wildlife
Service is working
with others to conserve,
protect, and enhance
fish, wildlife, plants,
and their habitats for
the continuing benefit of
the American people.*

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From the Historian

When I started *Conservation History* a decade ago, its aspirations were overwhelmed by logistics. I had hoped to create an annual, peer-reviewed journal that would highlight the history of the U.S. Fish and Wildlife Service and its partners. With this issue and our new invaluable editor, Maria Parisi, that dream is coming to fruition. This volume is the first in what will become an annual journal highlighting not only our Service history, but also the many heritage programs including our national oral history project and three national-level archives dedicated to preserving our past. Subsequent issues will undergo a peer-review process expanding the quality and readability of our articles while our *Gallery* and *From the Archives*

sections highlight our visual history. This issue is the first down payment on this grander vision.

Journals and historians, truth be told, live in a world of paper. From my book-lined office to the half-million documents housed in our archives, the raw material of our Service history is built upon the permanence of paper. Having been born in the age of B.C. (before computers), I still cherish the solidity and permanence encapsulated in a hard copy journal amidst a shelf of similar guidebooks to the past. So, this journal will continue to maintain a print presence. However, being an environmentalist and educator of young students, I also value the conservation and dissemination

qualities of digital journals. As such *Conservation History* will enjoy a split personality as both a hard-copy print publication mirrored by a digital edition. This dual presence should meet the needs of both audiences as we collect and share our shared conservation history to the widest possible public.

History will be kind to me for I intend to write it.

—Sir Winston Churchill (1874 - 1965)

Cheers,
Mark Madison, U.S. Fish and Wildlife Service Historian and Founder, *Conservation History*



Lisa Hupp/USFWS

“Everyone Has a Story”

... said Steve Chase, in response to a question about oral histories during a 2018 Heritage Committee meeting. We’ve got a backlog of transcriptions to complete, but, all agreed, that won’t stop us from continuing to gather stories from U.S. Fish and Wildlife Service (Service) retirees. Heritage Committee members—employees and retirees—support the Service’s oral history program, one way we tell the stories of the nation’s oldest conservation agency.

Steve, now Acting Director of the Service’s National Conservation Training Center (NCTC), has long advocated for the Service to preserve the culture and heritage of the Service. With the Heritage Committee’s support, NCTC launched the *Conservation History* journal—another forum for identifying and sharing our heritage. In 2008, and again in 2010, the journal featured personal stories about working for the Service. Many are expressions of the passion, joys, challenges and cherished memories of working for the Service.

The theme of this issue is the connection between outdoor sports and conservation. We begin with **Jeff Brammer’s** review of 19th and 20th-century sportsmen who shaped conservation in the United States—the North American Model of Wildlife Conservation and the legislation that authorizes and directs the Service in our work. Brammer weaves the stories of six men with the nation’s stories from the rapid decimation of wildlife and habitat as European settlers spread westward, to the hunters

and anglers who generate more funding for wildlife management than any other source. Yes, this is about the contributions of sports “men.” It’s about six white men in powerful positions who succeeded in carrying their agendas forward. We credit these leaders with the success system we have for wildlife and habitat conservation today.

There are other stories. **Queta González** hails from Venezuela and directs the Center for Diversity and the Environment. Her head and heart belong to conservation, and she tells another story. While she shares her passion for the outdoors and conservation, she calls for us to honor the different ways people connect to place and the outdoors, and she inspires all to explore their connection to the outdoors.

Next, four Service employees share their passion for hunting and fishing, for connecting with nature. **Gabe Gries, Cliff Schleusner, Al Barrus and Craig Springer** bring us personal stories that connect self, family, friends and community with the outdoors. They share, too, the value they feel supporting conservation through their actions.

Dale Hall, Ducks Unlimited CEO and Service retiree, reminds us about the Dust Bowl, the devastation to farms and families, and the call of waterfowl hunters to restore habitat and protect migratory birds. He takes us from the first duck stamp in 1934, which cost \$1, to the conservation successes we see in the United States today.

Retiree **Matthew Perry** takes us to South America, to an international conservation story from an “unconventional” conservationist—hedge-fund investor and philanthropist Mr. Paul Tudor Jones.

We highlight our heritage, further, with a set of “Departments.” Are you a retiree, or a retiree-in-training? Retiree **Jerry Grover** highlights the work of the FWS Retirees Association. Next, we feature an artifact from the NCTC Museum and Archives, an oral history excerpt from Kip Koss, J.N. “Ding” Darling’s grandson, and a gallery image. Inside the back cover, you will find the Service’s **Heritage Committee** mission and members.

The journal closes with a reflection from **Tony Rieth**, his deeply personal story about—more than a fishing trip—how nature nourishes our souls.

Whose stories are we missing?

The theme of the 2020 journal is the history of women in conservation, and the theme for the 2021 issue is the 150-year history of the Service. If you have questions or comments, contact me at maria_parisi@fws.gov or 304/876 7728.

Maria E. Parisi
Editor



William A. Troyer/USFWS

Sportsmen: The Creators of Modern Wildlife Conservation and Irreplaceable Contributors to Maintaining Biodiversity

*Jeff Brammer
Shepherd University Student,
National Conservation Training
Center Volunteer*

Introduction

The return of grizzly bear hunting in Wyoming¹ and a burgeoning wild elk restoration program in West Virginia are recent examples of successful wildlife conservation. In May, 2018, Wyoming officials approved the first grizzly hunt since 1974 in the Lower 48 after the bears were delisted as endangered species in 2017. In March, West Virginia introduced more than 50 western elk to a nascent southern coalfields population hovering near 100 elk after they were extirpated from West Virginia in 1875.

There is much legitimate concern about endangered species, extinction risk, and the consequences of poaching and wildlife trafficking. But the Wyoming and West Virginia events are just two examples in a long history of effective wildlife management in the United States. It is important when addressing future risks of sustainable wildlife management that people understand the significant contributions of sportsmen to conservation and habitat development.

These contributions come in three primary areas. First, 19th century sportsmen were the first conservationists, and since then, hunters and anglers have generated more funding for wildlife management than any other source. Second, regulated hunting and fishing protect critical habitat, fund law enforcement against poaching and allow for optimal harvests to

sustain wildlife populations against explosions and crashes. Third, several lessons can be learned from influential early sportsmen whose activities, between 1870 and 1940, have implications today.

The following sections discuss six examples of enthusiastic sportsmen who made contributions in various areas of wildlife and habitat conservation and legislation. The concluding section includes an analysis of these examples to provide some recommendations for future conservation policies.

Creation of a Conservation Challenge: 1870-1900

America at the time of European settlement was teeming with wildlife, but early settlers generally considered wildlife a nuisance or a commodity. Rapid industrialization and westward expansion of farms, roads and homes supplanted wildlife and habitat from coast to coast. Forests were cut, prairies plowed, wetlands drained, and livestock replaced wildlife, all in the name of progress.

Commercial markets for furs, meat, hides and feathers devastated populations of animals and wild birds. Nets, weirs, dams and pollution decimated fish populations. It was clear to sportsmen that national expansion and growth had come at the expense of wildlife and habitat. But it wasn't until hunting and fishing for sport became fashionable that concern rose over declining wildlife.

From the 1870s on, sportsmen's clubs worked for restrictions on exploitative hunting and fishing practices. Sportsmen's media like "American Sportsman, Forest &

Stream," and "American Angler" called for responsible fish and game seasons and bag and catch limits. Sportsmen-backed scientific societies pushed for a national fish culture and propagation system to restock depleted rivers and lakes. Sportsmen-supported conservation organizations campaigned for the establishment of protected areas for fish and game to live and to breed.

Spencer Fullerton Baird

In the late 1800s, a growing human population and an expanding railroad network increased demand for fish to the point of exhausting resources. Canning and refrigeration allowed fish to travel longer distances and improved technologies, like steam power, made catching fish easier. Bewilderment over declining fisheries was building nationwide.

The federal government institutionalized its concern in 1871 by founding the U.S. Commission of Fish and Fisheries, a precursor to the National Marine Fisheries Service. Congress appointed Spencer Fullerton Baird, a respected naturalist and the Smithsonian's first curator, as the first commissioner, with a directive to study declining fisheries. An avid waterfowl hunter, Baird developed the nascent science of fish culture in the United States, and the federal government launched the National Fish Hatchery System to propagate fish to restock barren streams, lakes and rivers.

Baird chose Woods Hole, Massachusetts, as the site of the nation's first fisheries lab, and he personally investigated the decline of southern New England fisheries. In 1872, the first federal

hatchery, known as the Baird Hatchery, opened on the McCloud River in California and cultivated salmon eggs to stock streams in the eastern United States. In 1879, the first striped bass were shipped by specially retrofitted railroad cars (fish cars) from New Jersey to California. That same year, Baird initiated a landmark study on the composition of fish to determine their food and nutritional values.

In 1880, as propagated rainbow trout were first distributed nationally, German emperor William I honored Baird at the Berlin Exposition as the world's preeminent fish culturist. Baird, who grew up hunting ducks and geese and later became an authority on birds, was the man first responsible for the global exchange of fish and fish ova. He worked at the Fish Commission until his death in 1887.

Fish stocking changed in the early 20th century when the indiscriminate introductions of fish in the late 1800s yielded to a more scientific approach. Stocking eggs and larval fish was abandoned, and fish were instead raised in

hatcheries for extended periods to be stocked when they grew larger and were more likely to survive. By 1941, the National Fish Hatchery System had constructed 110 fisheries nationwide, propagating valuable game and food fishes for global distribution.

Today, Baird's early work can be seen at the Woods Hole Research Center, one the world's leading research organizations for marine biology. The National Fish Hatchery System maintains facilities in 35 states and produces more than 60 species of fish, including popular game fish like trout, bass, walleye and crappie. The federal hatchery system also provides expertise to state hatcheries and wildlife agencies, while cultivating fish species threatened by natural disasters and development. In fiscal year 2016, the federal hatchery system distributed 238 million juvenile and adult fish to 47 states.

George Bird Grinnell

By the 1880s, much of the nation's terrestrial and avian wildlife resources had been exhausted or depleted to dangerously low

levels. Once abundant populations of deer, turkeys, bear and elk had been ousted from the eastern forests. Copious western grassland populations of antelope, mule deer, prairie chickens, raptors, songbirds and waterfowl fared little better. But the influx of hunters and railroads into the far west finally sparked a rallying cry as iconic species, like the American bison and bighorn sheep, were slaughtered to the brink of extinction.

George Bird Grinnell was a big game hunter and influential journalist who advocated for conservation issues, most notably protection of the beleaguered bison. John James Audubon's widow, Lucy, tutored Grinnell when he was a child, and she instilled within him a sense of the importance of environmental stewardship. Grinnell joined "Forest & Stream" (an influential weekly sportsmen's magazine and forerunner to today's "Field & Stream") in 1876 and rose to editor and publisher.

Grinnell was a mentor to a young Theodore Roosevelt, and his editorial campaigns sought to



Museum Archives/USFWS

Baird National Fish Hatchery pictured in 1875.

eliminate market hunting and adequately enforce state and federal game restrictions. His writings pressured passage of the Yellowstone Protection Act of 1894, giving the remaining 200 wild buffalo a measure of protection. Grinnell also was the driving force behind the establishment of Glacier National Park in 1910.

A trained paleontologist, Grinnell's affinity for the West began while digging for dinosaur bones in the early 1870s. He served as a naturalist on General George Custer's Black Hills expedition in 1874 and, the following year, he accompanied an Army reconnaissance expedition to Yellowstone Park. Seeing the wanton slaughter first-hand, Grinnell was convinced of the imminent danger facing big game like bison and bighorn sheep. Furthermore, he established relationships with Native American leaders that served him well decades later as Roosevelt's personal emissary, negotiating land controversies with Indian tribes.

In 1885, Grinnell reviewed the book *Hunting Trips of a Ranchman*, written by Roosevelt, a then-upstart politician and New York state assemblyman. Despite Grinnell panning the work as that of something written by a novice tenderfoot, the two men established a lasting friendship. Grinnell's advocacy and frequent editorials on behalf of regulated forestry use and public ownership of wildlife and habitat shaped a young Roosevelt's conservation philosophy prior to his presidency.

In 1887, Roosevelt and Grinnell founded the Boone and Crockett Club. At first, the exclusive organization, named for pioneers Daniel Boone and Davy Crockett, was a group of twentysomething wealthy sportsmen devoted to saving big game and Yellowstone Park. But the group quickly championed novel concepts like

reserves, national forests, national parks and a national conservation policy.

"Fair chase" hunting and high standards of sportsmanship also are cornerstones of the club's mission. Boone and Crockett Club members were instrumental in efforts to enact state measures establishing game and season limits, outlawing the use of dogs and night hunting with lights, and banning traps, snares and pitfalls common at the turn of the 20th century. Grinnell—who also founded the first Audubon Society in 1886 in protest of commercial plume hunters supplying the millinery trade—served as Boone and Crockett Club president between 1918 and 1927. Today, the Boone and Crockett Club maintains its big game record-keeping system for trophy animals and promotes habitat conservation and research.

Age of Legislation and Dawn of Wise Use: 1900-1920

The turn of the 20th century saw revolutionary federal legislation enacted to arrest troubling trends of rapidly vanishing wildlife. The federal government also ramped up efforts to protect public lands and waterways, building upon earlier efforts that designated Yellowstone Park the world's first national park in 1872. Furthermore, the nucleus of what is known today as the North American Model of Wildlife Conservation emerged with a foundation rooted in public ownership of natural resources.

The North American Model of Wildlife Conservation is a set of principles that steer wildlife conservation in the United States and Canada. Though it has no direct legal authority, its concepts have formed the framework for policy development by wildlife professionals and governments since the late 1800s. The model is predicated on principles of public ownership of wildlife and universal access to hunting and fishing, unlike European systems of private

control and limited access. Wildlife, fish, water and scenic places are considered too valuable for the greater good to be held privately. The model also advocates for non-commercial use of wildlife and scientific management for long-term sustainability.

The idea of wildlife as a public resource was codified by the Supreme Court in 1842 when the court denied a landowner's effort to exclude people from taking oysters from New Jersey mudflats he claimed as his own. Early sportsmen's groups, like the Carroll Island's Club in Baltimore and the New York Sportsmen's Club, embraced the notion of wildlife and habitat as a publicly held and managed resource. The Public Trust Doctrine solidified its stature at the heart of wildlife conservation, a distinction that remains intact today.

The late 19th century saw the rise of a utilitarian approach to the wise use of natural resources. Conservationists sought to meet current wants without sacrificing future needs. The frontier had closed, and the nation's timber, mineral, wilderness and wildlife reserves were no longer deemed inexhaustible in the face of a growing populace. The intelligent-use movement called for resources to be used for multiple purposes, for which the processes were to be carried out in a sustainable manner.

Theodore Roosevelt

Nobody contributed more to conservation and epitomized the principles of the wise-use movement better than Theodore Roosevelt, the 26th U.S. president who served between 1901 and 1909. An avid big game hunter, Roosevelt promoted the idea of conservation as an individual responsibility of citizenship and an administration priority. During his presidency, he protected 230 million acres of landscape for wildlife conservation, more than 80,000 acres per day



National Park Service

Theodore Roosevelt in outdoorsman attire.

in office. He created 5 national parks and founded the U.S. Forest Service, including 150 national forests.

Furthermore, he established 18 national monuments, including the Grand Canyon, and 51 bird preserves. The framework of what became the National Park Service also grew substantially during his administration. In 1916, when the National Park Service was created, 23 of the 35 sites were created by Roosevelt, who had left office 7 years earlier.

Born to wealth in New York, the youngest president in U.S. history became an ardent supporter of the natural world as a youth. Roosevelt was influenced as a boy by his uncle,

Robert Barnwell Roosevelt—a prodigious author on fishing and hunting and nature—who was campaigning to save shad from overfishing on the Hudson River. In later years, Roosevelt drew inspiration from Catskills transcendentalists and nature writer John Burroughs. But his biggest conservation influences occurred in the 1880s when he went west to test his mettle as a cattle rancher in the Dakota Badlands. Roosevelt wished to hunt bison before poachers could extirpate the species, and those experiences honed his environmental philosophy.

In 1908, in the waning days of his second term, Roosevelt convened a national convention of governors to discuss proper management and use of natural resources. At the

heart of the conference was a focus on the loss of wildlife, forests and other natural resources caused by exploitation of what had once been perceived as inexhaustible. Scientists, industrialists and conservationists came together to promote principles of rational use of land, water and forestry. Roosevelt spoke of the need for sustainable hunting and fishing practices, as well, through proper oversight and management.

During his first term, Roosevelt accomplished one of his most lasting legacies by laying the foundation for the National Wildlife Refuge System. In 1903, he designated a small plot of land on Pelican Island, Florida, as a sanctuary for brown pelicans and other birds being hunted for plumage. The 4-acre rookery near the Indian River was the first federal bird reservation, and later, the first location in a nascent National Wildlife Refuge System. Though the system did not emerge as coherent network until decades later, Roosevelt's influence was immediate.

By the end of his administration in 1909, Roosevelt had issued 51 executive orders that established wildlife reservations in 17 states and 3 U.S. territories. Congress responded and legislatively established the Wichita Mountains National Wildlife Refuge in 1905, the National Bison Range in 1908, and the National Elk Refuge in 1912. By the end of the refuge system's first decade, the collection of conservation lands included 65 units in 15 states and territories. By 1934, the nation had 120 refuges protecting a variety of species from bison, bighorn sheep and antelope, to migrating birds breeding and wintering along the four major North American flyway routes.

Today, more than 560 refuges and 38 wetland management districts spread across 150 million acres of land and water in all 50 states. Located in deserts, swamps, prairies, forests, seashores and tundra, the refuges provide habitat

for nearly all species of the nation's birds, reptiles, fish, and amphibians, as well as nearly half the mammals. The refuges are also home to nearly one-third of all species listed as endangered or threatened. In 2014, national wildlife refuges hosted 47 million visitors, pumping \$2.4 billion into the economy and creating 35,000 jobs in local economies. The lands are popular for outdoor recreation, including hunting, fishing, bird watching, hiking and boating.

John F. Lacey

In the late 19th century, state game laws and commissions were the primary tools regulating hunting and fishing activities in the United States. Federal authorities took notice of the unrelenting plight of wildlife as alarmed sportsmen continually pressured them about the limitations of state jurisdictions. Increasingly concerned, the federal government began implementing conservation programs and protections through regulations, law enforcement and refuge establishment. By 1890, an enthusiastic Midwestern sportsman led an emerging coalition of conservationist legislators.

John F. Lacey was a powerful 8-term Republican congressman from Iowa. Lacey was an avid hunter and member of the Boone and Crockett Club. The former Civil War soldier and attorney wrote legislation in 1894 to protect Yellowstone Park from poaching and commercial mining and timber interests. The law became the cornerstone of future law enforcement policies to protect birds and animals in the National Park Service.

Lacey also wrote the first federal law protecting wildlife in 1900, and it remains on the books. The Lacey Act made it a crime to ship illegally taken plants and wildlife across state lines, creating civil and criminal penalties for a wide array of violations. During a floor speech in which he advocated for his colleagues to pass the bill,

Lacey exhorted support from other legislators by praising the code of the sportsman.

The Lacey Act also strictly controlled the importation of exotic species and helped strengthen state game laws. The legislation aided the demise of trade in plume and feathers, as well as poaching and smuggling of wildlife meat products. Today, the Lacey Act also bans trade in illegal wood products and protects against importation of invasive species.

However, the Lacey Act wasn't the final legislation drafted by the devoted hunter and angler. Lacey also wrote the Antiquities Act, which became law in 1906, giving the president authority to designate national monuments. Lacey had traveled to the Southwest and been horrified by the damage caused by archaeological raiders. Roosevelt quickly used the power and protected Devils Tower National Monument and the Grand Canyon.

The Lacey Act was followed by further consequential wildlife legislation via the Migratory Bird Treaty Act in 1918, a critical step in controlling unregulated waterfowl hunting. Superseding state law, the Act gave the federal government primary jurisdiction over migratory birds and made it illegal to kill many native species and transport them across state lines. Early 20th century sportsmen had grown alarmed over recent extinctions of Labrador duck, the Carolina parakeet, and the passenger pigeon, once the most numerous bird on the continent. The wanton killing of game birds and migratory birds for food and feathers had become increasingly aggressive to satisfy demand for unique cuisine and the fashion industry.

A first-of-its-kind international treaty, signed by Canada and the United States, the Migratory Bird Treaty Act called for federal hunting seasons and bag limits. The legislation has served as the foundation for additional treaties

with Mexico, Japan and Russia to conserve hundreds of species that migrate across continents. The law was the first time the federal government sought oversight for a specific animal group, and enforcement of the legislation is credited with saving wood duck, snowy egrets and sandhill cranes from extinction. Today, it protects more than 1,000 bird species by making it unlawful to kill, sell or possess them, including molesting their nests or eggs.

Dedicated Funding and Emerging Science: 1920-1940

The 1920s and 1930s saw additional conservation legislation, but also unprecedented economic and ecological disaster. Demand for agricultural land in the preceding decades hastened large-scale dredging and filling of wetlands along the Great Plains. Weakened by years of overuse and poor management, dried out and fragile topsoil swirled into Dust Bowl destruction in the Dirty Thirties as the Great Depression collapsed the economy.

The creation of the Upper Mississippi River Wildlife and Fish Refuge (1924) and the Bear River Migratory Bird Refuge (1929) offered migratory birds some protection along critical flyways. But waterfowl populations plummeted to all-time lows in the 1930s, while numbers of other birds, ungulates and predators suffered similar precipitous declines. Increased agricultural runoff, irrigation, dams, canals and pollution degraded inland fisheries.

The 1930s, however, also welcomed two important contributions to wildlife conservation. First, wildlife ecology emerged as a field, calling for scientific analysis and environmental controls to restore wildlife populations. The first generation of professionals studying complex interrelationships between organisms and the environment joined the conservation cause and began managing fish and wildlife resources. Second, a permanent



USFWS

Jay "Ding" Darling purchases the first duck stamp (which he drew) in 1934.

funding source materialized to support natural resource agencies, wildlife research and habitat conservation. Much government spending had been cut in the 1930s and resources were scarce. But sportsmen's clubs, conservation organizations and scientific societies lobbied the federal government to pass legislation to fund natural resource agencies, wildlife research and incentives for landowners to conserve wildlife habitat. The Duck Stamp Act in 1934 and the Wildlife Restoration Act in 1937 are two prominent examples of a successful self-funding conservation model.

Jay "Ding" Darling

Jay "Ding" Darling was a Pulitzer Prize-winning editorial cartoonist and conservationist with a passion for waterfowl hunting and fishing. Despite a lack of wildlife management experience, President Franklin Delano Roosevelt appointed him head of the U.S. Biological Survey, a predecessor to the U.S. Fish and Wildlife Service. Darling served as head of the bureau between 1934 and 1936. During that time, he increased the number of wildlife refuges and established a national federation of

sportsmen's groups to speak with a unified front.

In 1934, Darling initiated the Duck Stamp program, which required waterfowl hunters aged 16 and older to buy a federal hunting stamp to raise money to purchase wetlands. Five years earlier, the Migratory Bird Conservation Act passed Congress allowing government consideration for the purchase of wetlands for protection. But, the 1929 legislation didn't provide a permanent funding mechanism. Despite tough economic times in the early 1930s, selfless sportsmen rallied behind passage of the Migratory Bird Hunting Stamp Act, better known as the Duck Stamp Act, and it remains a central feature of wetland conservation. Since 1935, sales of federal Duck Stamps have generated more than \$1 billion to purchase approximately 6 million acres of waterfowl habitat.

With Darling devoted to reversing damage done to populations of ducks and geese, several wildlife refuges in the 1930s were established along the nation's four major flyways. More than 60 national wildlife refuges in the

Great Plains owe their existence to the Dust Bowl era, today accounting for more than 1.5 million acres of restored lands and wetlands managed by the system. Waterfowl production areas in North Dakota and Minnesota were significant benefactors, including the 213,000-acre Devils Lake Wetland Management District and the 59,000-acre J. Clark Salyer National Wildlife Refuge. In addition to providing wildlife with critical habitat, wetland areas throughout the country also stabilize soils, improve water quality, and reduce flood risk.

In 1936, Darling convinced Roosevelt to call the first North American Wildlife Conference to establish the national importance of wildlife resources. Darling led the conference, which sought organization of a general federation of wildlife interests and the adoption of a national program for conservation and restoration. Conference topics included farmer-sportsmen cooperatives, fish management, wildlife disease research, pollution, practical game management, and lake and stream improvement.



Tom Koerner/USFWS

Pronghorn on Seedskaadee National Wildlife Refuge, Wyoming.

Darling's newly formed General Wildlife Federation adopted a four-phase approach, including fostering professional wildlife training, wildlife research, public education in wildlife management, and federal assistance to state wildlife agencies. Darling served the first 3 years as president of that organization—the forerunner to the National Wildlife Federation—uniting sportsmen's groups, outdoor enthusiasts, organizations and businesses in conservation efforts.

Today, the National Wildlife Federation promotes conservation through increased public awareness, promotion of alternative energy sources, and reduction of carbon emissions. The organization is also devoted to addressing poaching and the illegal wildlife trade, which threaten existing conservation efforts. During the federation's 2017 annual conference, topics included the impact of invasive species in the Florida Everglades; the global fallout from high-fenced game farms; and the devastation of illicit wildlife trafficking of iconic species such as elephants and rhinos. In the United States, the Federation remains vigilant in restoring bison and bighorn, protecting public land

for pronghorns and moose, and cleaning the Great Lakes for game fish like walleye.

Aldo Leopold

By the 1930s, many people recognized that laws regulating consumption and prohibiting certain equipment and methods for taking wildlife weren't enough. Wildlife science had developed beyond taxonomy, and better methods of censusing wildlife—studying food habits, cover requirements, and diseases—had potential to bolster species restoration. As ecology developed as a discipline, wildlife management research began in earnest, and the concepts of plant succession, niche, community scales, trophic levels and food chains were developed.

Aldo Leopold was a wildlife biologist, professor, and avid grouse hunter who merged the field of ecology with proper wildlife management. Leopold became the first professor of game management in 1933 and was later renowned for a unique nature ethic where he saw land as a living organism—including soils, plants, waters and animals. He conducted the first intensive analysis of wildlife

populations in the Midwest, and he determined that, through scientific analysis and environmental controls, wildlife populations could be restored. Leopold's essays on “the land ethic,” published posthumously in *A Sand County Almanac* in 1949, remain influential today.

Leopold worked from 1909 to 1928 for the U.S. Forest Service, where he hunted bears, wolves and mountain lions for the government's predator extermination program. With an expanding awareness for the need to protect wilderness, Leopold convinced the federal government to set aside 750,000 acres of land in New Mexico in 1922. Two years later, Gila National Forest became the country's first official wilderness area, for which Leopold had written the management plan.

In 1924, Leopold transferred to the U.S. Forest Products Laboratory in Madison, Wisconsin, where he served as associate director. In 1930, Leopold headed a scientific committee that published a 400-page manifesto titled *American Game Policy*, acknowledging that existing conservation programs were

inadequate to control declining wildlife. The committee's directive called for wildlife restoration and a corps of trained wildlife biologists to make decisions based on science, experience and an underlying set of principles for the emerging profession. Those principles included the concept that every species has a defined set of distinctive habitat requirements, all animal and plant biota are interconnected, and habitat has a "carrying capacity" which should not be exceeded.

In 1933, Leopold became the first professor of game management at the University of Wisconsin and published *Game Management*, the first book of its kind in the United States. The book intertwined the fields of forestry, agriculture, biology, zoology and ecology to improve wildlife reproduction and survivability. The book was also the first to document scientific methods for making public and private lands yield sustainable populations of wildlife for annual recreational use. Leopold trained the first generation of wildlife ecologists, and the science of wildlife management has been broadly accepted and adopted.

In 1935, Leopold helped found the Wilderness Society, and he turned his zealous appreciation for nature to a new task when he purchased a ruined farm in the sand counties area of Wisconsin. He and his family nursed the land back to health after it had been ravaged by financial and natural disaster in the 1930s. On weekends and during school breaks, family, friends and students transformed the landscape into a picturesque collection of conifers, hardwoods and prairie. Leopold's experiences were captured in a series of essays in which he communicated the responsibility people had for the land they inhabit.

Pittman-Robertson and Dingell-Johnson

Every state had a fish and game agency by the early 20th century charged with enforcing game laws

and predator control. But funding remained a pervasive problem, and true wildlife conservation and restoration often fell by the wayside. Before the late 1930s, most state wildlife agencies had little or no income except from the sale of hunting and fishing licenses. Though authorities were often eager to sustain fish and wildlife populations within their borders, state legislatures routinely diverted large portions of license revenue to projects unrelated to wildlife conservation.

With little federal funding or resources available at the height of the Depression, sportsmen successfully lobbied Congress to pass what is arguably the most effective conservation law in history. In 1937, Congress passed the Wildlife Restoration Act, more commonly known as Pittman-Robertson, earmarking an 11 percent excise tax on firearms and ammunition for states to use to finance wildlife restoration. Named for sponsors U.S. Sen. Key Pittman, of Nevada, and U.S. Rep. A. Willis Robertson, of Virginia, the legislation has provided a dedicated revenue source to address limitations of individual states. Congress has amended the legislation to include additional equipment including archery. To account for differences in land area and population, a formula calculated how much each state received, accounting for both the state's size and the number of licensed hunters.

States were eligible to receive up to 75 percent of total project costs from the Pittman-Robertson fund with the expectation they would fund the remaining 25 percent. The law also required states to dedicate all hunting-license revenues to running its wildlife agency. The first 10 years after passage of Pittman-Robertson saw 38 states acquire approximately 900,000 acres of land for use as wildlife management areas. The total acreage has since grown to more than 4 million, and an additional 40 million acres are managed for

wildlife in agreements with private landowners.

Early projects focused on habitat reclamation and wildlife relocation, including transplanting deer and turkeys from states with healthier wildlife populations to states with dwindling game populations. By 1948, wildlife experts across the country had moved thousands of deer, pronghorn antelope and elk, as well as fewer numbers of mountain goats, wild sheep and bears. States with depleted game populations quickly rebounded, and Pittman-Robertson funding was further directed toward conducting wildlife surveys, research, technical assistance and hunter education programs.

The success of Pittman-Robertson inspired anglers to pursue a similar model to support the nation's fisheries. In 1950, the Sport Fish Restoration Act, commonly known as Dingell-Johnson, placed a 10 percent excise tax on fishing equipment and motorboat fuel to fund recreational fisheries management. Named for sponsors U.S. Rep. John Dingell, of Michigan, and U.S. Sen. Edward Johnson, of Colorado, the legislation was modeled on the same dedicated revenue mechanism and 75-25 percent split as Pittman-Robertson. To be eligible, states are required to dedicate in-state license revenues to state fish agency use.

Since inception, Dingell-Johnson money has been earmarked for states to improve aquatic habitat; stock lakes, rivers and streams; and conduct fisheries research. Funding has also been used to purchase land, manage public impoundments and waterways, and increase anglers' access by building boat ramps. Several states have built state-of-the-art hatcheries, and all states monitor fish populations and establish harvest quotas. States have also constructed and maintain dump stations for boat sewage, and they operate recreational fishing and boating education programs.

Since 1937, the combined Pittman-Robertson and Dingell-Johnson legislation has funneled more than \$20 billion to states for conservation and recreation projects. In 1939, the first year Pittman-Robertson took effect, the federal government apportioned \$890,000 to the states. In 2018, former U.S. Interior Secretary Ryan Zinke announced \$1.1 billion in annual funding for state wildlife agencies generated by Pittman-Robertson and Dingell-Johnson. Today, the combination of state and federal sportsmen-derived funding accounts for between 60 and 90 percent of a typical state fish and wildlife agency budget.

Analysis and Concluding Remarks

These six enthusiastic sportsmen engaged in wildlife and habitat conservation, and they used their affinities for hunting and fishing as motivations. They possessed intimate knowledge of the outdoors, and their understanding of ecology enabled them to wage a convincingly passionate defense of wildlife. They organized groups, communicated their concerns, constructed institutions and stimulated legislation to effectively protect natural resources through sustainable use and active management. Much of this conservation framework remains intact today. Government agencies, regulatory systems and public lands continue to serve as a bedrock for conservation in the United States after more than a century.

Based on analysis of the preceding sections, it's appropriate to draw the following conclusions. First, sportsmen are not poachers, and it behooves conservation-minded hunters and fishermen to challenge public misconceptions that the terms are interchangeable. Second, Americans today enjoy abundant fish and wildlife resources because of a unique blend of legislation, science and financing developed by visionary sportsmen. Third, the legacy of conservation advanced

by sportsmen since 1870 provides a roadmap for future success as challenges evolve, including changing demographics, increasing financial uncertainties and climate change.

The lines between hunting and poaching must not be blurred. Unfortunately, sportspeople and poachers are too often confused in the public eye. This false association damages the reputation of law-abiding sportsmen and women, especially hunters, and diminishes support for the industry. Poaching and illicit wildlife trafficking are certainly pervasive problems. But there is a clear distinction between ethical sportspeople and poachers who circumvent laws and regulations and operate with blatant disregard for science-based conservation. Poachers' motivations are strictly financial, and their actions continue regardless of ecological cost.

Much public scrutiny of hunting arises from the current struggles of notable game species in Africa, including elephants, rhinos and lions. Many African countries promote trophy hunting of leopards, zebras, giraffes and Cape buffalo as part of a billion-dollar industry regulated to varying degrees of government control. The public is often skeptical about oversight in economically distressed countries where opportunities are scarce and poaching is lucrative.

While African hunting regulations are beyond the scope of this paper, poaching nevertheless places tremendous pressures on game and non-game species elsewhere, including the United States. Black bear are regularly killed for their gallbladders and bile for aphrodisiacs and medicinal purposes. Bobcats are taken for pelts. Paddlefish and sturgeon eggs are taken for caviar. Snakes are taken for skins. Elk, deer, bighorn sheep, moose, waterfowl and predators are killed out of season or otherwise in violation of the law.

Fortunately, responsible sportsmen and women possess a unique vantage point in the battle against poaching. They are often best positioned to witness and report offenders to authorities and provide a crucial frontline defense against illicit activities. Sportspeople must also be vocal about the positive role legal hunting plays in scientific wildlife management, including maintaining ecological balance, sustainable populations and predator control. These activities can gain the public trust and better differentiate sportsmen and women from poachers in the public eye.

It is also clear from the preceding sections that sportsmen-initiated conservation has worked and continues to work. Many species have rebounded from the brink of extinction to reach healthy populations, including two of the most popular game animals in the United States. White-tailed deer and wild turkey both suffered precipitous declines as land was cleared and commercial hunting became widespread. Yet, each have made remarkable comebacks after their populations collapsed to tiny fractions of their pre-European settlement numbers. Since 1900, populations of white-tailed deer have exploded from fewer than 500,000 to more than 30 million today. During the same period, the population of wild turkey increased from fewer than 650,000 to more than 7 million. Other game species have undergone similar restorations following successful transplantation and reintroduction.

The population of Rocky Mountain elk has increased from a low of fewer than 40,000 to roughly 1 million today. Wood duck, extremely rare in 1900, now boast a population of more than 5 million. Pronghorn antelope (13,000 to 1 million) and bighorn sheep (25,000 to 80,000) also completed impressive rejuvenations. It should be noted that recovery extends beyond game animals to include non-game fish and wildlife, including the iconic

bald eagle. Though largely a result of banning the insecticide DDT, bald eagle populations—once down to about 400 breeding pairs, but now about 11,000 pairs—reside on public lands. These success stories can be directly attributed to sustained efforts by sportsmen and women, the establishment of vast swaths of public land, and support from a permanent funding mechanism.

Two examples much in the news in 2018 epitomize the success of ongoing wildlife management and restoration efforts. First, the reintroduction of free-roaming elk to the rolling hills of West Virginia for the first time in nearly 150 years. Second, the first grizzly bear hunt on the outskirts of Yellowstone Park in Wyoming in more than 43 years. Neither would have been possible but for concerted efforts of sportsmen and the conservation framework they founded and continue to support.

In West Virginia, Pittman-Robertson money aided in the purchase of 32,000 acres of forestland in the southern part of the state to reintroduce elk. The program started in 2016 with roughly 20 elk introduced at the Tomblin Wildlife Management Area on reclaimed coal mining land. Native elk were extirpated from West Virginia in 1875, a casualty of unregulated hunting and aggressive logging.

In 2018, wildlife officials rounded up nearly 60 elk on state and national forest lands near Flagstaff, Arizona, and sent them east. That represented the third infusion of western elk into West Virginia after a batch of about 20 others were transplanted from a restoration program in neighboring Kentucky. After summer calf-drop season in 2018, West Virginia officials expected a population of more than 100, and plans exist for additional reintroductions during each of the next few years.

Meanwhile, in Wyoming, officials are preparing for the first grizzly bear hunt in the continental United States since 1974. Grizzly bears were removed from the Endangered Species List in June, 2018, after 4 decades of federal protection and control was placed back with the states. In the 1970s, the population of grizzlies around Yellowstone Park had fallen to fewer than 150 as ranchers shot them to protect livestock. Grizzlies also suffered habitat loss as industries ignored their interests and viewed them as impediments to expanding mining, logging and energy development.

But grizzly bears in Wyoming have exceeded recovery criteria and rebounded to a population of about 700 today. Wyoming officials voted unanimously in May 2018 to allow hunters to shoot as many as 22 grizzlies in a highly-regulated hunt east of Yellowstone Park. The Service has also begun efforts to delist the other large population of grizzlies in the Lower 48 in and around Glacier National Park in Montana. Regardless of one's opinions on hunting, the fact grizzlies are rebounding is a testament to the success of modern wildlife management.

Future gains in wildlife and habitat conservation, however, are not guaranteed. The once-ubiquitous cultural traditions of hunting and fishing face mounting challenges, causing concerns over the financial viability of a proven conservation management model. Changing demographics, increased urbanization, intensifying competition for recreational spending, and the vagaries of politics present potential roadblocks. Maintaining affordable public access to hunting and fishing grounds is becoming increasingly difficult. Climate change also threatens future sustainability of wildlife and habitat through the onset of severe droughts, sea level rise, increasing temperatures, the spread of disease and greater weather extremes.

These economic, societal and environmental issues must be properly addressed to ensure the longevity of a critical pillar in wildlife conservation. Hunting and fishing are big business in the United States, as spending by sportsmen and women on both activities in 2016 totaled \$81 billion. Nationwide surveys regularly show widespread public support for hunting and fishing. But demographics show an aging constituency of mostly males and few people of color, suggesting potential limits for growth. In 2016, nearly 36 million people went fishing in the United States and 11.5 million went hunting. While the number of people fishing increased 8 percent over 2011, the number of hunters fell by 16 percent, and hunting-related spending dropped from \$36 billion to \$26 billion.

Sportsmen and women have long faced challenges. Imposing a system of regulations in the 19th century wasn't easy, as independent-minded Americans tended to associate restrictions and game laws with European tyranny. Many settlers were recent immigrants who recalled the draconian laws in their homelands where land and wildlife belonged to nobility and the privileged. But American sportsmen persevered, and a conservation system built on public access to wildlife and wise use of natural resources became entrenched.

It is clear from the above examples that sportsmen created a successful system for wildlife and habitat conservation. By engaging in effective communication and organization, these pioneers built consensus and influenced the public, state legislatures and Congress to take appropriate action to conserve precious natural resources. It is vital to all who value wildlife and habitat in the 21st century that sportsmen and women build upon this proven method and that the public offer support and encouragement.

Last year, my wife and I joined our family for a vacation at Yellowstone Park. In addition to the magnificent natural wonders—the waterfalls, geysers, springs, canyons, valleys, lakes and mountains—there were spectacular displays of thriving wildlife. A herd of bison stopped our tour bus dead in its tracks as it crossed the highway in front of us with a police escort. We saw moose, bighorn sheep, elk and deer. There were bears, wolves, goats and mountain lions. The lakes and skies were filled with raptors, songbirds, waterfowl and shorebirds. Had it not been for the tireless efforts of generations of devoted sportsmen, the spectacle of our trip would not have carried the same appeal. It is imperative that for future generations to enjoy similar experiences with rich biodiversity, sportspeople continue to hunt and fish.



Note

¹Subsequent to the writing of this article, in September 2018, a federal judge ordered protections restored for grizzly bears in the Northern Rocky Mountains. Wildlife advocates and tribal groups sued to vacate a U.S. Fish and Wildlife Service decision to delist the grizzly bear as an endangered species. Plaintiffs argued federal authorities didn't sufficiently consider potential long-term consequences of hunting to bear populations. In December 2018, the state of Wyoming indicated it would challenge the September ruling in a federal appellate court. The case remains before the court.

Meanwhile, in February 2019, Wyoming Gov. Mark Gordon signed a bill allowing the Wyoming Game and Fish Commission to authorize a grizzly bear hunt in the state. Environmental groups have vowed legal action if the state commission issues a hunting season for grizzlies. As of now, the issue remains unresolved, but it is possible a grizzly bear hunt could be held later this year.

In a related matter, in March 2019, the Service announced it would seek to delist the gray wolf. The proposal affects all wolf populations in the Lower 48 states, except for the Mexican wolf subspecies that lives in Arizona and New Mexico, which will retain threatened status. Like the grizzly bear, federal authorities say the gray wolf has made a strong recovery.

Bibliography

Andersson, K., Davis, C., Harris, G., and Haukos, D. (2018). Nonbreeding Duck Use at Central Flyway National Wildlife Refuges. *Journal of Fish & Wildlife Management*, 9 (1), 45-64.

Arnett, E., and Southwick, R. (2015). Economic and Social Benefits of Hunting in North America. *International Journal of Environmental Studies*, 72 (5), 734-745.

Arnold, M. (2017). What's Good for the Goose May Not Be Good for the Gander: A Bird's Eye View of the Emerging Incidental Take Permit Program Under the Migratory Bird Treaty Act. *Vermont Law Review*, 42 (1), 153-190.

Billings, J. (1889). *Memoir of Spencer Fullerton Baird, 1823-1887*. National Academy of Sciences. Washington, D.C.

Braverman, I. (2015). Conservation and Hunting: Till Death Do They Part? A Legal Ethnography of Deer Management. *Journal of Land Use & Environmental Law*, 30 (2), 143-199.

Brinkley, D. (2009). *The Wilderness Warrior: Theodore Roosevelt and the Crusade for America*. New York, New York: HarperCollins.

Brown, R. (2010). *A Conservation Timeline: Milestones of the Model's Evolution*. The Wildlife Society. Bethesda, Maryland.

Brulle, R., and Benford, R. (2012). From Game Protection to Wildlife Management: Frame Shifts, Organizational Development, and Field Practices. *Rural Sociology*, 77 (1), 62-88.

Brulliard, K. (2018). "Grizzly Bear Trophy Hunt in Yellowstone Area Approved by Wyoming." *The Washington Post*. 23 May 2018.

Byrd, E., Lee, J., and Olynk Widmar, N. (2017). Perceptions of Hunting and Hunters by U.S. Respondents. *Animals*, (2076-2615), 7 (11), 1-15.

Cart, T. (2004). The Federal Fisheries Service, 1871-1940: Its Origins, Organization, and Accomplishments. *Marine Fisheries Review*, 66 (4), 1-46.

Collins, M. (1989). *That Damned Cowboy: Theodore Roosevelt and the American West, 1883-1898*. New York, New York: Peter Lang.

Dall, W. (1915). *Spencer Fullerton Baird: A Biography*. Philadelphia, Pennsylvania: J.B. Lippincott Company.

Duda, M., Jones, M., and Criscione, A. (2010). *The Sportsman's Voice: Hunting and Fishing in America*. State College: Venture Publishing, Inc.

Eberhardt, S. (2013). The Lacey Act Amendments and United States' Policing of International Trade. *Houston Journal of International Law*, 35 (2), 397-430.

Goode, G. (1996). Biographical Sketch of Spencer Fullerton Baird. *Marine Fisheries Review*, 58 (1/2), 40.

Grove, N. (1984). *Wild Lands for Wildlife: America's National Refuges*. Washington, D.C.: National Geographic Society.

- Hall, L. (2015). Beyond a Government-the-Hunter Paradigm: Challenging Government Policies on Deer in a Critical Ecological Era. *Journal of Environmental Law & Litigation*, 30 (2), 255-302.
- Hanson, Joyce. (2018). "Wyoming Looks to Take Yellowstone Grizzly Fight to 9th Circuit." *Law360*, December 5, 2018. <https://www.law360.com/articles/1108433>
- Heffelfinger, J., Geist, V., and Wishart, W. (2013). The Role of Hunting in North American Wildlife Conservation. *International Journal of Environmental Studies*, 70 (3), 399-413.
- Hughes, T., and Lee, K. (2015). The Role of Recreational Hunting in the Recovery and Conservation of the Wild Turkey in North America. *International Journal of Environmental Studies*, 72 (5), 797-809.
- Kline, B. (2011). *First Along the River: A Brief History of the U.S. Environmental Movement* (4th edition). Plymouth, United Kingdom: Rowan & Littlefield Publishers, Inc.
- Krausman, P., and Bleich, V. (2013). Conservation and Management of Ungulates in North America. *International Journal of Environmental Studies*, 70 (3), 372-382.
- Krausman, P., and Mahoney, S. (2015). How the Boone and Crockett Club (B&C) Shaped North American Conservation. *International Journal of Environmental Studies*, 72 (5), 746-755.
- Kudelska, Kamila. (2019). "Groups Challenge New Wyoming Law that Could Allow Grizzly Bear Hunt." *Wyoming Public Media*, February 22, 2019. <https://www.wyomingpublicmedia.org/post/groups-challenge-new-wyoming-law-could-allow-grizzly-bear-hunt#stream/0>
- Lawrence, C. (2018). "More Elk Have Arrived in West Virginia." *West Virginia Metro News*. 19 March 2018.
- Leopold, A. (1986). *Game Management* (originally 1933), (Reprint edition). Madison, Wisconsin: University of Wisconsin.
- Leopold, A. (1966). *A Sand County Almanac: With Essays on Conservation from Round River*. New York, New York: Ballentine Books.
- Lendt, D. (1979). *Ding: The Life of Jay Norwood Darling*. Ames, Iowa: Iowa State University Press.
- Lockman, M. (2017). Bird Take – Death Trade. *UCLA Journal of Environmental Law & Policy*, 35 (1), 1-56.
- Mahoney, S., Krausman, P., and Weir, J. (2015). Challenges for Conservation and Sustainable Use in North America. *International Journal of Environmental Studies*, 72 (5), 879-886.
- Mahoney, S., and Jackson, J. (2013). Enshrining Hunting as a Foundation for Conservation – the North American Model. *International Journal of Environmental Studies*, 70 (3), 448-459.
- McCoy, J. (2018). "WV to Receive More Elk from Kentucky." *The Charleston Gazette-Mail*. 19 January 2018. https://www.wvgazettemail.com/news/wv-to-receive-more-elk-from-kentucky/article_7b2a58b1-4537-594e-977c-f45d6d995b54.html
- Meine, C. (2010). *Aldo Leopold: His Life and Work*. Madison, Wisconsin: University of Wisconsin Press.
- Miller, S., McLellan, B., and Derocher, A. (2013). Conservation and Management of Large Carnivores in North America. *International Journal of Environmental Studies*, 70 (3), 383-398.
- Murphy, M. (2015). "DNR Receives Grant to Jumpstart Elk Restoration." *The Charleston Gazette-Mail*. 22 February 2015. https://www.wvgazettemail.com/news/dnr-receives-grant-to-jumpstart-elk-restoration/article_973eba8d-7af4-5853-ab0e-01322aa90fb6.html
- Musgrave, R., Parker, S., and Wolok, M. (1993). The Status of Poaching in the United States – Are We Protecting Our Wildlife. *Natural Resources Journal*, 33 (4), 977-1014.
- National Wildlife Federation. (2013). *Nowhere to Run: Big Game Wildlife in a Warming World*. Reston, Virginia.
- Nie, M., Barns, C., Haber, J., Joly, J., Pitt, K., and Zellmer, S. (2017). Fish and Wildlife Management on Federal Lands: Debunking State Supremacy. *Environmental Law* (00462276), 47 (4), 797-932.
- Nielson, L. (1993). *History of Inland Fisheries Management in North America*. In *Inland Fisheries Management in North America*, C. Kohler and W. Hubert editors. Bethesda, Maryland: American Fisheries Society.
- Nye, E., and Hoem, S. (1987). Big Game on the Editor's Desk: Roosevelt and Bierstadt's Tale of the Hunt. *New England Quarterly*, 60 (3), 454-465.
- Pammel, L. (1915). *Major John F. Lacey: Memorial Volume*. Cedar Rapids, Iowa: Iowa Park and Forestry Association.
- Paulson, N. (2012). The Place of Hunters in Global Conservation Advocacy. *Conservation & Society*, 10 (1), 53-62.
- Punke, M. (2007). *Last Stand: George Bird Grinnell, the Battle to Save the Buffalo, and the Birth of the New West*. Smithsonian Books New York, New York: HarperCollins.

- Reiger, J. (2001). *American Sportsmen and the Origins of Conservation* (3rd edition). Corvallis, Oregon: Oregon State University Press.
- Rieman, B., Hessburg, P., Luce, C., and Dare, M. (2010). Wildfire and Management of Forests and Native Fishes: Conflict or Opportunity for Convergent Solutions? *Bioscience*, 60 (6), 460-468.
- Riley, L., and Riley, W. (1979). *Guide to the National Wildlife Refuges: How to Get There, What to See and Do*. Garden City, New York: Anchor Press/Doubleday.
- Ripple, W., and Beschta, R. (2005). Linking Wolves and Plants: Aldo Leopold on Trophic Cascades. *Bioscience*, 55 (7), 613-621.
- Robbins, J. (2018). "Grizzly Bears Can Now Be Hunted Near Yellowstone After Wyoming Vote." *The New York Times*. 24 May 2018.
- Rodriguez, Juan C. (2019). "FWS to Delist Gray Wolf, Yet Experts Don't Expect a Trend." *Law360*, March 15, 2019. <https://www.law360.com/articles/1139433>
- Sellars, R. (2007). A Very Large Array: Early Federal Historic Preservation – The Antiquities Act, Mesa Verde and the National Park Service Act. *Natural Resources Journal*, 47 (2), 267-328.
- Semcer, C., and Pozewitz, J. (2013). The Wilderness Hunter: 400 Years of Evolution. *International Journal of Environmental Studies*, 70 (3), 438-447.
- Somerville, K. (2016). *Ivory: Power and Poaching in Africa*. London, England: Hurst.
- Spidalieri, K. (2012). Looking Beyond the Bang for More Bucks: A Legislative Gift to Fund Wildlife Conservation on its 75th Anniversary. *Cleveland State Law Review*, 60 (3), 769-797.
- The Wildlife Society. (2010). *The Public Trust Doctrine: Implications for Wildlife Management and Conservation in the United States and Canada*. The Wildlife Society, the Association of Fish and Wildlife Agencies, the Western Association of Fish and Wildlife Agencies, and the Wildlife Management Institute Technical Review 10-01. Bethesda, Maryland.
- The Wildlife Society. (2012). *The North American Model of Wildlife Conservation*. The Wildlife Society and the Boone and Crockett Club Technical Review 12-04. Bethesda, Maryland.
- U.S. Department of the Interior, U.S. Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. (2018). *2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*. Washington, D.C.
- U.S. Department of the Interior, U.S. Fish and Wildlife Service. (2015). *Meet the National Wildlife Refuge System: Special Places Where Wildlife and People Thrive*. Washington, D.C.
- U.S. Department of the Interior, U.S. Fish and Wildlife Service. (1987). *Restoring America's Wildlife, 1937-1987: The First 50 Years of the Federal Aid in Wildlife Restoration (Pittman-Robertson) Act*. Washington, D.C.
- U.S. Department of the Interior, U.S. Fish and Wildlife Service. (2012). *Celebrating the Wildlife and Sport Fish Restoration Program: 75 Years of Conservation and Partnership Success*. Washington, D.C.
- U.S. Department of the Interior, U.S. Fish and Wildlife Service. (2018). *Fish and Aquatic Conservation*. Washington, D.C. <https://www.fws.gov/fisheries/nfhs/index.html>
- U.S. Department of the Interior, U.S. Fish and Wildlife Service (2013). *National Fish Hatchery System: Strategic Hatchery and Workforce Planning Report*. Washington, D.C.
- U.S. Department of the Interior, U.S. Fish and Wildlife Service. (2018). *History of the Federal Duck Stamp: Conserving Habitat for Birds and People*. Washington, D.C. <https://www.fws.gov/birds/get-involved/duck-stamp/history-of-the-federal-duck-stamp.php>
- U.S. Department of the Interior. (2018). *The Conservation Legacy of Theodore Roosevelt*. Washington, D.C. <https://www.doi.gov/blog/conservation-legacy-theodore-roosevelt>
- West Virginia Division of Natural Resources. (2015). *West Virginia Elk Management Plan: Fiscal Year 2016 to Fiscal Year 2020*. Charleston, West Virginia.
- West Virginia Metro News. (2018). "DNR Acquiring 17 Elk from Kentucky Recreation Area." 19 January 2018. <http://wvmetronews.com/2018/01/19/dnr-acquiring-17-elk-from-kentucky-recreation-area/>
- Winkler, R., and Warnke, K. (2013). The Future of Hunting: An Age-Period-Cohort Analysis of Deer Hunter Decline. *Population & Environment*, 34 (4), 460-480.
- Zellmer, S. (2014). Wilderness Management in National Parks and Wildlife Refuges. *Environmental Law* (00462276), 44 (2), 497-547.
- Zuckerman, L. (2018). "Wyoming Approves Controversial Hunt of Yellowstone Area Grizzlies." *Reuters*. 23 May 2018.



Queta González

Space to breathe.

My Career in Conservation



Queta González

*Queta González
Center for Diversity and the
Environment*

As Director of Center for Diversity and the Environment, I view conservation as much more than the preservation and protection of pristine spaces. I've had a lifelong relationship with the outdoors through farming, fishing, hunting, paddling, hiking and mountaineering. I also understand how land and nature are intricately connected to people, even to those of us who live far from parks and open spaces. Many of us love outdoor recreation and find our passion for environmentalism through our love of outdoor sports. Others come to conservation through an understanding that our survival depends on stewardship, for instance, the people who work the land and are in constant relationship with it. There is no one "right way," but if we want to tend to our environment, we need to learn from one another, our history and our diversity of experience.

When my family came to the United States from Venezuela, we didn't think in terms of "conservation," although in Caracas, our homes

were intimately connected to the outdoors. We had a courtyard in the middle of the house—birds and rain came in. Our windows opened directly to the open air, with no screens. When we moved to South Dakota, it was December. I didn't even know what cold was—there wasn't even a word in my vocabulary! I'd go outside and say, "My skin is burning!" Actually, it was freezing! We suddenly had this whole new relationship to the outdoors and to the land in our new country.

My mom grew up farming, so our backyard in South Dakota became a garden. I spent my childhood tending the land, paying attention to the critters with whom we shared our place. I've always been happiest outdoors, but even so, at the time I didn't *love* gardening. I certainly didn't connect that work with recreation! Around that time, Billie Jean King and Bobby Riggs had their famous tennis match, and "womenSports" magazine was founded. I remember an issue where a group of women attempted an ascent of Annapurna, I think, a peak in the Nepal Himalayas. I was sitting on the prairie looking at that story of the all-women's expedition thinking, "I wanna learn to climb mountains! I want to do that!"

But it was at home in the backyard where I developed an ethic of conservation and care. I knew the land could sustain our family. For instance, we would go fishing for bullheads—but bullheads are bottom feeders that get all the heavy metals and toxins that sink in the ponds and lakes, so we learned how to diversify our diets with other foods. As we were getting

ready to fish, we paid attention to what was happening in the waters, and to all populations of organisms dependent on the water quality. To be a conservationist, everyone has to pay attention to the land in the greatest detail when they're choosing their food sources. That was a huge part of my life that impacted my professional career as a biologist.

I attended college in Flagstaff, Arizona, where I fell in love with the Grand Canyon. When I met rafters, kayakers and canoers, I joined them and started paddling rivers. I believed it was the best thing since cachapas! Every part of me was suddenly connected. To this day, to be on the river is to know exactly if I'm in balance or not with my environment. If I'm in balance, I'll be able to hear and see what the river is telling me and move through the waters with a good environmental ethic. The river will tell me if I'm out of balance, and I'll struggle. It wasn't about ego—if it ever was, I'd get slammed.

When I became a whitewater paddler, I really expected anyone who got on the river would feel the same way. Who wouldn't love rivers the way I loved them? It's natural for us to transfer our experiences and expectations onto others. And there's a key to the past there—in the history of the U.S. conservation movement, a small group of white men wanted to protect the land, but their perspective was ethnocentric and systematically motivated to make places available only for people like them. Their intentions were good, and we're grateful today that they got one part of the whole really right. But they also viewed

the environment as a frontier to be explored, or hallowed grounds to be enjoyed—not necessarily as places where peoples and cultures already lived and had been thriving for generations. The history of public lands in the United States includes a history of native peoples being pushed off ancestral lands and being prevented from living their traditional subsistence lifestyles; African-Americans were also not welcome in the early days. So spaces were preserved for the few at the expense of others. We love and support public lands, but we must recognize the history is complicated. Seeds were planted early on that shaped our country's relationship to land and access. More than a century later, we're still working through that legacy.

To this day, leadership at national and international environmental non-governmental organizations is overwhelmingly male and white. This influences priorities, campaigns and cultures of practice at those institutions. These are both results of this legacy. So it is tempting for me to look back really critically at the time of John Muir and Gifford Pinchot and other folks. I think they made mistakes. I think in some cases it was intentional, and in other cases they were products of their times—and there was no understanding of what could happen later as a result of their actions.

But today, we have an opportunity to pay attention to everyone, including those who have been historically excluded, who really value our resources and wild spaces—those who are willing to vote to protect and preserve ecosystems. We have all kinds of data demonstrating people of color vote at higher rates than anyone else to protect, preserve, and fund our wild spaces, our parks, clean water, sustainable farming, and so on. Still, some don't believe it's critical to include a broader range of people in the conservation narrative.

After-the-fact attempts to invite people of color in to existing conservation programs ignores the need to build inclusive and diverse workplace. We need to be diverse, yes, but also equitable, which means hiring people of color in leadership positions, checking our language and assumptions, and pushing ourselves to take a hard look at political legacies that curtailed freedoms for some populations and discouraged access to public lands. When I hear organizations say, "We tried to hire a person of color, but there just wasn't anyone out there," that is a clue the organization might be stuck in a certain myopia, only searching in familiar places, only having one image in mind when thinking of field "experts," or only inviting in new people who replicate the culture that already exists.

For example, Oregon is close to 80 percent white, and without a visible lack of equity, some people wonder why we need to focus on equity and inclusion. Furthermore, they wonder, "What do diversity, equity and inclusion have to do with conservation?" But in a majority white area, assuming a problem doesn't exist, simply because it isn't at the surface, negates all the good work done by people of color and indigenous folks in Oregon—that's close to a million people (and growing)! They become completely invisible, as do their political views and all the critters and open spaces they care about. So, by calling Oregon a "white state," the experiences of so many people just get lost, systems of oppression are reinforced, and the conservation movement loses out on its biggest proponents.

This is a part of my story, but there are inroads for every single person on the planet to connect to the land and develop a conservation ethic. As soon as you step out your door, you are in nature. It'll look different if you're in New York City, Portland or the Rockies. But nature can be wherever you create it, whether in a

city park or a wilderness area. You can value nature, value how you feel all the way to your bones with the sun on your skin, the wind blowing against you—value how you feel all the way to your innate sensory organs, in a way you can't when you're only living in an indoor world.

We need to honor different ways of being in place and being connected to place. Maybe your family wants to have picnics, play games in the campground, or maybe you're going ultra-light backpacking on the Pacific Crest Trail. Maybe you understand the land around you and creatures around you because you're living a subsistence lifestyle. Maybe you want to ride bikes, motorcycles, horses, or ATVs. We have to understand that people who do things differently can still value spaces and share a conservation ethic, and we can connect across a broad range of perspectives.

Today, we're facing a lot of accelerating challenges, from climate change to anti-immigrant violence to corporate enclosures of open space and rampant oil and gas drilling. But for us conservationists, for every action there's an opportunity. We at the Center for Diversity and the Environment are seeing more and more people interested in growing their understanding of equity, diversity, inclusion and how these connect to conservation. People are increasingly interested in creating inclusive spaces, deepening their understanding and analysis of our own history and of how things play out and repeat. For me, this trend might be the upside of all the challenges, and sometimes frightening things, that are happening.

Some people feel much removed from the land, but everyone can be encouraged to take the time to be outside. If you'd like to try something in a wild area, a national park, or a wildlife refuge, or you want your kids to, find

organizations that are offering trips. Camps are a great way when you're young to get into a structured environment that teaches some skills. In Oregon, we have Outdoor School for All (<https://extension.oregonstate.edu/outdoor-school>), and most states have environmental education associations with members offering programming. You can find more information at the North American Association for Environmental Education (<https://naaee.org/>).

There are also many opportunities in high school and college. Getting politically active and joining a get-out-the-vote campaign, for example, could help push more people in your communities to support candidates committed to conservation. There are also volunteer opportunities in every city and town to clean up litter, plant trees, and engage in care for our communities. Work with whatever's around you.

Connecting to the outdoors makes a big difference in wellness and health. As part of my job and my commitment to conservation, I encourage everyone to find their own way. It's important. If we can transform ourselves, we can transform the world.



Lisa Hupp/USFWS



If I Knew Then What I Know Now

*Gabe Gries
Wildlife and Sport Fish
Restoration Program,
Northeast Region
U.S. Fish and Wildlife Service*

Growing up in northern New Hampshire in the 1970s, my childhood and teenage years were inextricably linked to fishing and hunting. This was a region and time when students and teachers missed school on the opening day of deer season, and dusty back roads along streams during summer were scattered with kids on bikes holding fishing poles in search of the next trout pool. Although neither of my parent's participated in these activities, I was lucky to have a grandmother who taught me to fish at age 3 and a friend's father who helped fuel my interest in hunting.

In high school, fishing became my main passion, and my love of all things fish turned into the focus of my post-secondary degrees, and eventually my career. At the time, I had no idea about the strong and long-standing connections between sportsmen and women and conservation, or how the conservation of the resources I enjoyed pursuing was funded. Nor did I care. I just wanted to be outside with a fishing rod or gun in my hand. Little did I know just how important the role of hunters, anglers, boaters and target shooters in conservation would be to me over the next 40 years, both from a professional and personal standpoint.

Working first as a fisheries biologist for the New Hampshire Fish and Game Department and then for the U.S. Fish and Wildlife Service, I found I was not alone



The author with a fine New Hampshire largemouth bass.

in my pre-college naivety. For example, a common question when I told someone I worked for the New Hampshire Fish and Game Department was, "What exactly do you do with my state tax dollars?" It is not an overstatement to say the vast majority of Americans do not understand the vital role sportsmen and women play in conservation success or how state fish and wildlife agencies are funded.

State fish and wildlife agencies rely on a number of funding sources to achieve conservation and connect people with nature. While some are lucky enough to receive state tax dollars, most of their budgets are dependent on those who hunt, fish and target shoot. In fact, it is estimated that 58.8 percent (\$3.3 billion) of annual state fish and wildlife agencies' budgets come from hunting, fishing and target-shooting related activities.

There are two key ways that hunters, anglers, boaters and target shooters contribute to these agencies, and thus to conservation. The first, the purchase of licenses, tags and stamps by hunters and anglers, is a direct and somewhat

obvious funding mechanism. The second funding mechanism, the Wildlife Restoration Act and Sport Fish Restoration Act, is indirect and less well known. These Acts institute an excise tax on manufacturers for the sale of ammunition, firearms, archery equipment, and fishing equipment, and on a portion of the gasoline tax attributable to motorboats and small engines. These tax dollars are then administered annually through the Service via Wildlife and Sport Fish Restoration Program grants to state and territory fish and wildlife agencies, funding activities such as wildlife and fish management, hunter and aquatic education, land acquisition and operations and maintenance, fish hatchery operations, habitat management, operation and maintenance of public target shooting ranges, and hunter, angler and boater access. It should be noted that the benefits of a number of these activities extend beyond just species that are hunted or fished.

The funds generated by these excise taxes are by no means small. In Fiscal Year 2018, the Wildlife Restoration apportionment for state and territory fish and wildlife agencies was just more than \$797 million and the Sport Fish Restoration apportionment was almost \$352 million. Since each Act's inception, the Service has directed \$11.5 billion for Wildlife Restoration and \$9.0 billion for Sport Fish Restoration to these agencies. In addition to the financial benefits to fish and wildlife agencies, increased conservation, and greater opportunities for the public to connect with nature, the Acts ensure cooperation between the



Jason Carrier

The author enjoying the results of sound state fish and wildlife agency management funded by sportsmen and women.

Service and state agencies, forming strong partnerships.

Both my personal and professional experiences over the years have solidified the importance of sportsmen and women in conservation to me. From a sportsman's perspective, I am thankful to these individuals each time I catch a fish, launch my boat, or see a deer or turkey in the woods.

As a state fisheries biologist, my salary and the projects I worked on were funded by Sport Fish Restoration grants and license revenue. I saw firsthand the incredible impact these funding sources had on my state's ability to perform wildlife and fisheries management, hire staff, conserve land, raise and stock fish, provide public access and protect and improve habitat.

Now working for the Service, administering Wildlife and Sport Fish Restoration grants, I can fully understand the wide-reaching conservation impacts sportsmen and women have. As an example,

some state fish and wildlife agency accomplishments using Wildlife and Sport Fish Restoration Program grants and state agency funds from just the Northeastern Region (13 states and the District of Columbia) include:

- Conservation and management of more than 70 species of freshwater and marine sport fish
- Conservation and management of more than 235 species of wild birds and mammals
- Protection and management of 3.2 million acres of state land available to the public
- Operation and maintenance of 1,600 public boat access sites
- Annual education of 260,000 students in hunting, fishing and aquatic resources
- Operation and maintenance of more than 70 fish hatcheries which annually produce 270 million sport fish of more than 25 species

- Operation and maintenance of 177 public target shooting ranges for enhancement of skills and safety techniques

I feel fortunate every day for the outdoor and career opportunities I have been afforded by the public who hunt, fish, boat and target shoot. Would I have taken up these activities when I was young, or been more passionate about them, if I knew the huge impact that sportsmen and women have on conservation? Probably not, but understanding their role makes me proud to be a member of their ranks and of the conservation accomplished by the state fish and wildlife agencies that I help fund. Furthermore, it reinforces the fact that in order to maintain viable conservation and ensure continued opportunities for the public to connect with nature, we must increase efforts to grow the number of hunters, anglers, boaters and target shooters within current and future generations.



Spring Ritual Leaves Lasting Impressions

*Cliff Schleusner
Wildlife and Sport Fish
Restoration, Southwest Region,
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Spring: It's the most wonderful time of the year in New Mexico. The woods are alive with sights and sounds, none greater than the courtship display of wild turkeys. New Mexico is graced with three of the six subspecies of the wily bird—Rio Grande, Merriam's, Gould's—from Raton to Rodeo. More than 14,000 hunters will go

afield before the turkey hunting season is over in May to try and fool a strutting tom into shotgun or bow range.

For the uninitiated, it's more difficult than it appears to outwit a wild turkey. And when the time comes, you can count me among those who will be sitting in the ponderosa forest, stock-still on a cold morning—yelping and cutting with a box call at daybreak, hoping to hear that signature sound that tells me turkeys are nearby. Turkey

hunting requires alertness and awareness—a Zen-like living in the moment—like no other endeavor.

Lucky for me I have the privilege to be in the woods with my aging father and my teenage son. With my boy, I will do what my dad has done with me going on 45-plus years. It has become ritual with my family and many others alike.

But were it not for conservation, that ritual may have never come to be. There was a time that wild



Cliff holds a Merriam's turkey while his dad, Cliff, Sr., looks on; harvested in the Gila National Forest, New Mexico.

Courtesy of Mr. Schleusner

turkey faced extirpation from unregulated market-commodity harvest and ruined habitats. The woods were hushed in April.

The tide turned 82 years ago with the passage of the Wildlife Restoration Act of 1937, commonly called the Pittman-Robertson Act named for the authors of the federal legislation. It was an ingenious law.

Few are the folks who actually enjoy paying more in taxes, but you can count hunters among those who do. The Wildlife Restoration Act was supported by organized sportsmen and women, state fish and game agencies, and industry to tax firearms and ammunition with the protected proceeds going specifically to wildlife conservation.

The outcome has been nothing short of remarkable—the state agencies have for 82 years been assured of a reliable steady stream of funding based on license sales and purchase of hunting gear. It's no coincidence that the New Mexico Department of Game and Fish began trapping and relocating wild turkey 2 years into the new law, in 1939, to ensure the expanding population was comprised of genetically robust animals. In 1940, the agency bought

a reach of the Rio Cebolla in the Jemez Mountains near Los Alamos for waterfowl conservation, today's Fenton Lake State Park. That was followed by the purchase of an 8-mile reach of the Cimarron River and adjacent uplands, and many other wildlife management areas across the state, including large tracts of short-grass prairie, prime lesser prairie-chicken habitats. The law funded scientific wildlife research, habitat management, and wildlife restocking. The agency was the first in the country to capture and relocate pronghorn at a time when the population was an anemic 2,400 animals. All this was facilitated by a tax on sporting gear. In 1950, the Sport Fish Restoration Act did for fish what the former law did for wildlife. In 8 decades time, \$19 billion has been returned to the states for conservation. This year, \$21.5 million is available to the New Mexico Department of Game and Fish for conservation work, paid for by hunters and anglers.

When you buy that new turkey gun, arrows or a new bow, a box of shotgun shells, or fishing tackle you should know that you are making an investment in conservation's cycle of success. As much as 11 percent of your purchase goes

to state fish and game agencies, returned to you in the form of science-based wildlife and fisheries conservation; you help pay the salary of a biologist; you buy fuel for aircraft that carries wildlife biologists who conduct aerial big game or waterfowl surveys to inform future decisions. Your money feeds Rio Grande cutthroat trout destined to be restored to a high mountain stream.

In New Mexico, more than 200,000 people annually buy hunting and fishing licenses. This supports more than 7,900 jobs contributing more than \$800,000,000 in spending and labor while putting another \$106,500,000 back into the public coffers as income and sales tax revenue. Certainly, hunting and fishing is an economic boon for New Mexico.

But the greatest dividends have immeasurable value: the splendor of watching the first light of day awaken the woods; the sound of a talking tom turkey filling the air from the ridge above me, while I sit next to those who I love the most. That's something that I will never grow tired of.



Courtesy of Mr. Schleusner

Cliff Schleusner with a Merriam's turkey in New Mexico.



Dad's Desert Bighorn with Cliff in Arizona.



Courtesy of Mr. Schleusner

Cliff, Dad and Mike quail hunting in Arizona.

First Deer Hunt at Buffalo Lake National Wildlife Refuge



Fourteen-year-old Gavin Paschall after harvesting his first mule deer.

*Al Barrus
External Affairs, Southwest
Region, U.S. Fish and Wildlife
Service*

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After extensive population surveying, U.S. Fish and Wildlife Service biologists at **Buffalo Lake National Wildlife Refuge** opened the refuge to two youth hunters selected through a lottery. One of the hunters, 14-year-old Gavin Paschall (pictured) of Fort Worth, Texas, successfully harvested a mule deer at the northern Texas panhandle refuge December 2.

Hunting is not available at all national wildlife refuges, but we are expanding hunting opportunities at refuges when compatible with wildlife management goals. Before deer hunting could be allowed at Buffalo Lake, biologists observed deer populations to assess stability. Hunting is a tool for wildland managers to balance game populations.

“Working very close with the Texas Parks and Wildlife Department, our sister state agency, I began going on spotlight surveys and assisting them on data collection,” said Buffalo Lake Refuge Manager Jude Smith. “From these surveys, I determined that two deer should be harvested. And that the first hunt should be for youth.”

Hunting has roots for most human civilization. One of the most valuable things hunters bring to non-hunters is lobbying for the expansion of public lands. Hunting gear is taxed federally, and those funds go to conservation efforts that benefit both hunters and non-hunters. The practice of hunting encourages future generations to value public wildlands, wildlife and other nature conservation values.

“Hunting with my son means a great deal to me,” said Gavin’s father Shawn Paschall (pictured with Gavin). Shawn is a criminal defense attorney in Fort Worth.

“Not only do we get the benefit of spending time together and creating lifelong memories, it also provides an incredible teaching opportunity,” Shawn said. “Hunting is not easy. It takes preparation, planning, effort and discipline. It is important to me to hunt in an ethical manner. I try to instill in him that second to safety, the humane taking of game is the goal. That means training with the firearm to ensure a humane kill and recovery of the game, exercising discipline not to take low percentage shots that might wound, preparing for the hunt by studying the geography and our quarry, taking care to preserve the meat for consumption, following all the laws all the time no matter if someone is watching or not.”

Hunting is a wildlife management tool for wildland managers, as state game and fish agencies and the U.S. Fish and Wildlife Service seek to keep delicate ecosystems in balance.

“There have been several examples of when deer and elk populations exploded, and they basically ate

Shawn Paschall

themselves out of habitat, then the populations dropped off because there wasn't enough food," said Dr. Gary Roemer, a professor of wildlife ecology at New Mexico State University.

Opening even a limited hunting opportunity at Buffalo Lake is a highly appreciated addition to a state where less than 1 percent of Texas' landmass is open to hunting. Making hunting more accessible means turning more people on to wildland conservation values.

"A big issue is that in Texas there is very little public land and a lot of hunters or potential hunters," said Jude Smith. "Most of these hunters have relatively few places to hunt and have to either acquire a lease to hunt on private land, which can be expensive, or to hunt on public land in other nearby states such as New Mexico or Colorado, which can also be expensive."

Legal hunting on a grand scale adds value to wildland conservation throughout the country, an advantage for both hunters and non-hunters alike.

"The money spent by hunters in the form of excise taxes on ammunition and other gear goes to the Wildlife and Sport Fish Restoration program of the Service. The money then goes back to the state game and fish agencies to manage hunted populations" Dr. Roemer said.

"Non-hunters should know hunters are great advocates for the preservation of wild lands; they are vociferous about maintaining healthy landscapes which can support healthy wildlife populations because they not only love to hunt, but they love to just go outdoors," said Roemer.



Jude Smith/USFWS

Gavin and his father, Shawn Paschall, with the first mule deer taken from the inaugural Buffalo Lake National Wildlife Refuge public hunt.



Jude Smith/USFWS

The deer was taken after a stalk of more than 1,000 yards.

See with a Hunter's Heart

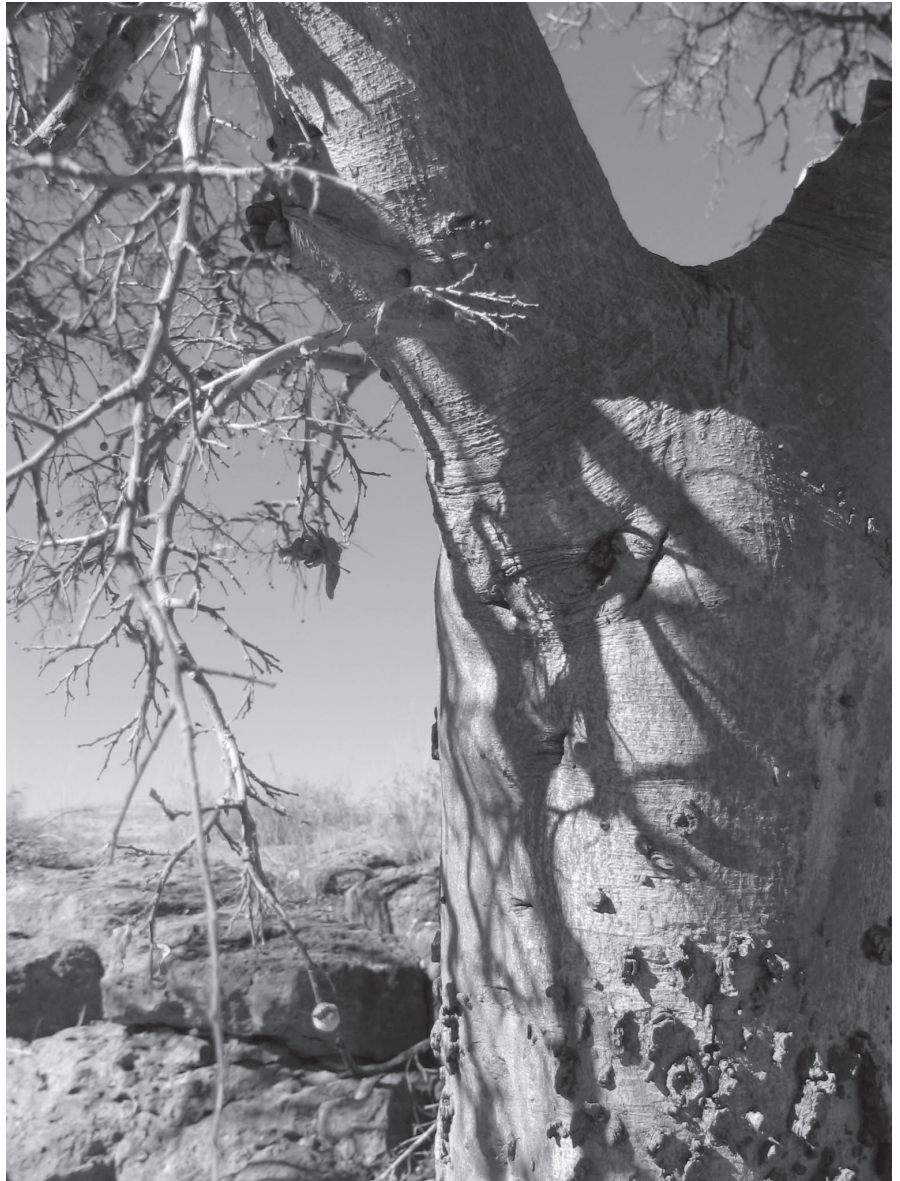
*Craig Springer
External Affairs, Southwest
Region, U.S. Fish and Wildlife
Service*

I can see the old Ohio farm with the eyes of my heart, anytime that I like. I intersected with its fallow fields and fence lines for what was really only a brief period of my youth before moving back to New Mexico.

And every time that I look, the mental image is always the same: It's November. Fat raindrops patter stalks of grasses that lie flat to the ground. Sodden soil curls like dough around my boots as I slog along kicking brush piles for quail or cottontail. My rain-soaked shoulders are chilled from a damp cotton sweatshirt that's pulled by the weight of a couple of rabbits in my game bag. A blue jay's scolding chatter from a distant woodlot arcs through the cold leaden-gray sky. My dad's pump shotgun lies heavy in my arms. I'm built like a late-July cornstalk at an age where innocence begins its selfish collapse.

Despite the press of years, this place and the experiences that it gave up over a couple of seasons yield to me an everlasting spiritual larder. Most any ardent hunter will tell you that a full-immersion experience in nature that comes with hunting is, irreducibly, a spiritual one.

Witness the dissonance of a ring-necked pheasant as it puts sky between the two of you, or the disquieting skirr that comes with a covey of quail taking to the wing from your ankles. Duck hunters scan the skies for distant



Craig Springer/USFWS

Nettleleaf hackberry tree, Warm Springs Gulch, Sierra County, New Mexico.

black specks. Goose hunters listen for that jarring discordant honk coming from afar. Dusky grouse hunters in the West wearing off boot sole in the high country turn their eyes upward to the tops of blue spruce and white fir on the flush. These experiences immerse

you in nature and enliven a passion. They sharpen your senses, and all of them are, without question, spiritual experience.

I know but only a few hunters who go afield strictly to put food in the freezer. Hunters immerse



Craig Springer/USFWS

A pair of bobwhite and scaled quail on shotgun.



Craig Springer/USFWS

Scaled quail, Sierra County, New Mexico.



Craig Springer/USFWS

Quail habitat in Sierra County, New Mexico.

themselves in an aesthetic ritual, and the very kernel of ritual is a spiritual matter. “The duck hunter in his blind and the operatic singer on the stage, despite the disparity of their accouterments, are doing the same thing,” said the father of modern wildlife management, Aldo Leopold. “Each is reviving, in play, a drama formerly inherent in daily life. Both are, in the last analysis, aesthetic exercises.”

Hunters describe their full immersion experience in varying degrees as connecting with the fruits of the land in ways that can’t come from other endeavors. Philosophers from Socrates to Ortega y Gasset to Leopold considered that the experience of hunting as clarifying for the mind. Hunters fully immerse themselves as not just an observer of nature, but one who is *in* nature.

It’s emotional. Transcendent, like a writer living in the page, a distance-runner in top form dissociated from fatigue, or a carpenter carefully crafting the right cut—they’re all bound in the moment.

It is nature that makes us human, and hunting makes this most convincing. This original aesthetic act of hunting is paradoxical:



Craig Springer/USFWS

Willow Springer on a quail hunt, Cibola National Forest, Sierra County, New Mexico.

immersed in the hunt that could end in death is life-affirming. Hunting stirs your senses to re-create one's own being. And that speaks to core of why hunters are conservationists, why they care immensely for nature. Conservation of wild things in wild places matter to people. For the last 80 years hunters have funded conservation through the Wildlife and Sport Fish Restoration Program in the U.S. Fish and Wildlife Service. If you've bought a lure, a box of shotgun shells, or gas for your boat, you've helped fuel conservation through excise taxes that go back out on the ground in the form of science-based wildlife and fisheries conservation or to create better access to fish and hunt.

One of my favorite places to hunt quail in New Mexico with my children is near my family home in Sierra County, at the juncture of two dry ravines where a spring wells up through a crack in the soil. It's a quiet, organic connection to earth. On a jutting hunk of granite, a lone gnarled netleaf hackberry hangs by its roots that palm through crevices into the spring. Its corky bark looks like that found on common hackberries growing in the corner of a fallow field from a lifetime ago.

This lone gray tree near a wet desert seep evokes an everlasting fluid image: It's November and raining. A covey of bobwhite quail

takes to the wing in a shocking flurry. The shotgun kicks my wiry frame. The covey's scattered brown forms in flight pass through the hackberry trees and melt into a miasma, swallowed by a sooty gray sky.

I'm as wealthy as Croesus that I can live in that fixed spot of time, anytime of my choosing. Those odd acres that had quail and cottontail impressed my morals. The land that I will probably never see again still serves up spiritual food that sticks to my ribs.





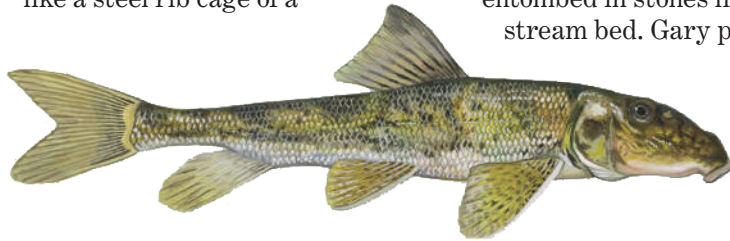
Seeking the Counsel of Waters

*Craig Springer
External Affairs, Southwest
Region, U.S. Fish and Wildlife
Service*

So long as I have a mind that thinks and a heart that loves, I will remember my brother Gary and the little creek valley that bore our footsteps for a brief time when we were young. We were transients moving from one epoch in life to another, but the little stream and the woods and fields it drained live larger than one can imagine.

Through the vapors of memory, the mystic chords that tug on me from a period so long ago beckon our time spent in the out-of-doors. My family left New Mexico in the 1970s and moved to Ohio; I came of age near the Indiana state line where till plains, flat as a skillet, meet the hilly glacial moraines. Cornfields, pastures and woodlots checker-boarded the gentle undulating hills piled up by mile-thick glaciers. Indian Creek, named for the ancient Adena earthworks along its course, cut sinuously

through the straight-line right-angles of fence rows and narrow asphalt ribbons laid long ago over sections lines. The creek purled over the state line into Ohio and then immediately beneath a short truss bridge that looked like a steel rib cage of a

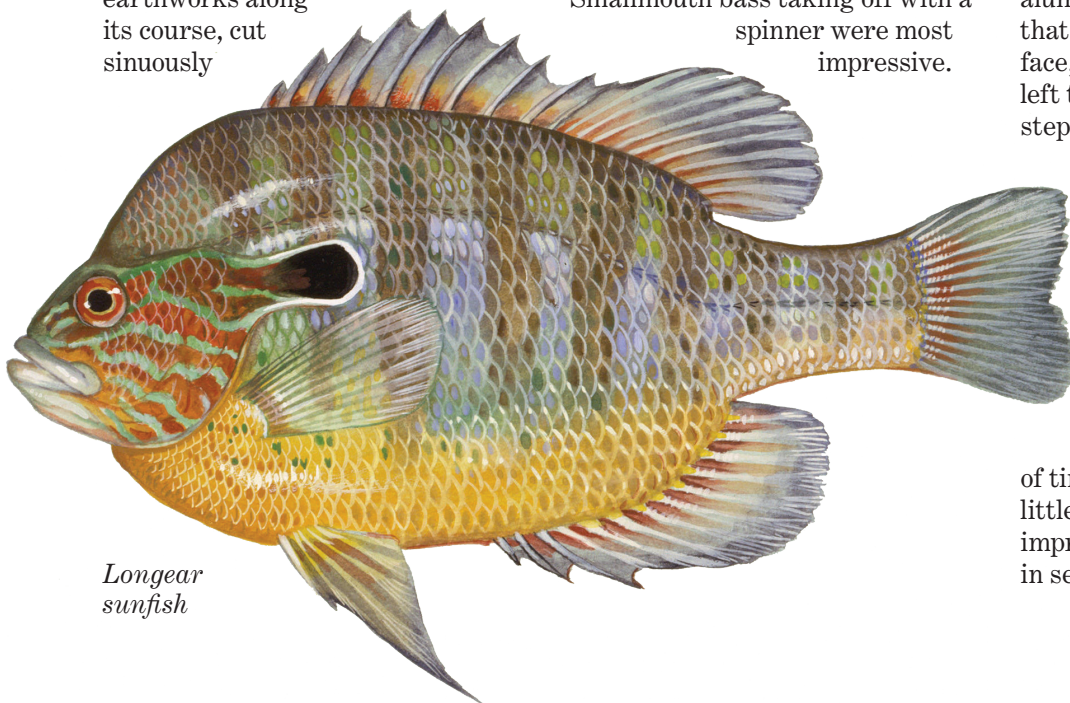


*Northern
hogsucker*

large mammal. A few friendly farmers afforded us places to fish.

Gary and I landed hogsuckers with their curious indented foreheads. Bright longear sunfish sported more colors than Crayola.

And I can still hear in my head the croaking sounds creek chubs made as they slipped through my hands. We wrangled rock bass, with red eyes too big for their faces, from the roots of pale streamside sycamores. Smallmouth bass taking off with a spinner were most impressive.



*Longear
sunfish*

When I travel through the recesses of memory about this stream, I always arrive at a singular recollection of a cool early spring afternoon. I'd tired of fishing, not being able to draw a strike. My attentions turned to fossils entombed in stones littering the stream bed. Gary plowed on

ever determined to catch something. He had a deliberate gait, and how he ambled between pools showed his resolve that afternoon.

Gary pushed his glasses up as he looked down, threading his line onto yet one more lure. He laid a jig in a deep pool of water the color of root beer beneath bare box-elder branches. He felt a slow take and set the hook. His wet boots on smooth rocks sent him staggering. He tripped on a pewter-colored aluminum tackle box lying open that put him to the ground. To save face, I was to blame for the spill. I'd left the tackle box where he could step on it. We exchanged verbal jabs, and with a pair of pliers, he wrinkled the tackle box back into shape so that it would close.

In retrospect our times together along Indian Creek and the hills that hemmed it were rather short-lived. The intersection of time and place permitted a little stream to make outsized impressions. All things come to us in seasons—and so they go.

My next season found me at Hocking College where I first endeavored in the study of fish biology. The old two-story brick house where I rented a room was an artifact of the former coal-mining industries in Ohio's Appalachian Piedmont. What had housed an affluent family in the early 20th century during the mining heyday, now kept rain off college students.

That March, 30-some years ago, was exceedingly wet. Sleep didn't come easy. Flat raindrops splattered the portico right outside my second-story window like nails splitting tin. In the pre-dawn dark, a police officer visited my front door. He delivered news that made me dizzy with dread. I needed to call home right away. There had been a death in the family.

Backlit by a distant street lamp, rain poured down my neighbor's kitchen window like thin drams of mercury. The dial on her dirty-yellow rotary wall phone

March is the cruelest month. It's neither winter nor spring. But by April the coming season leavens the pallor of that in-between time. The hills along Indian Creek made by a Pleistocene winter will be spattered colors akin to a candy box.

Here's what I see. Thin sooty morning clouds lift off an orange eastern horizon. Yellow-breasted chats ceaselessly sing as they flit about the streamside trees. The morning sun warms my face, and the air is damp with dew. Gigantic pale-green sycamores sewn into the banks lean over the pools as if they have a yen to see who's fishing upstream. And there I am, atop a hill mere feet from the Indiana state line looking down the valley to see my own teenage self. There's the two of us. A smile is fixed on Gary's face, and there's wet sunshine in his hazel eyes.

Gary ended his own life at a time when there's still a lot of boy in a man. Left with a poverty of

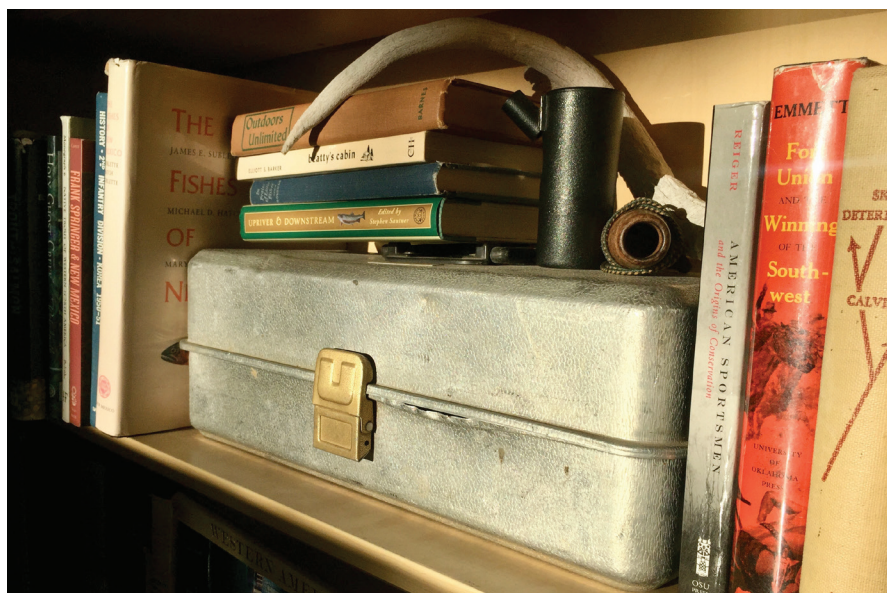


Courtesy of Craig Springer

Gary Springer.

But here's what I do know. Nature and humanity are not bifurcated—nature makes us human. And the past is not dead. That creek and its chubs and chats and sycamores that threaded through us transcend time and space—the living and the dead. Those waters where we tussled with sunfish and suckers still provide counsel. My brother's death swamped the lives of those who cared about him, but love endures. His memory deserves perfect grace.

Gary lies at rest on the brow of a glacial moraine beneath muscular oak, maple and gum trees where forest birds fill the air with bright spring music. I still have the tackle box that he stepped on. It sits on my bookshelf with a few of my favorite things. It has the faint sweet smell of anise oil we put on lures thinking it would attract big fish. The trays have a few dry-rotted sunfish poppers, rusty spinners and scarred plugs. The keepsake is the bite marks from his pliers made that sacred day many years ago.



Craig Springer/USFWS

An old tackle box holds more than antiquated lures.

spun torturously slow. The phone pulsed teh-teh-teh-teh in my ear. The last number sent the call clear across southern Ohio. All of eternity compressed in the moment. The phone rang once. My dad, the man with a spine of steel, told me in a quivering voice that my brother was dead.

understanding, I tried to get inside his head. His cryptic notes, the last words he scrawled offered a glimpse into the anguish that he suffered. Some answers reside beneath the blue lines left by his hand, but more questions remain. I am resigned to say that some things are simply unknowable.

The Hunter Conservationist

*H. Dale Hall
Ducks Unlimited
Retired, U.S. Fish and
Wildlife Service*

The year is 1933, and the Great Depression is in full swing. Many banks have closed their doors because they have no cash to disburse, and the unemployment rate is more than 25 percent. (To put that in perspective, the recession of 2007-2009 had unemployment of 12 percent.) People are hiding what money they have in coffee cans under floorboards in their house or in the barn's corn crib. In big cities like New York, the unemployed and their families stand in lines that

circle a city block as they wait their turn to get a cup of soup and chunk of bread, their only meal for the day.

In addition to the dire economic times brought on by the stock market crash, a drought that had begun in 1931 was devastating the landscape as winds swept up bone-dry topsoil, literally blowing the habitat into the wind. It was known as the Dust Bowl Era, and it impacted farms and families across America. Many think of the Dust Bowl as affecting only the Midwest and Great Plains, but records indicate dust storms reaching New York City and Boston in such strength that one could not see the Hudson River or Boston Harbor

from only a few blocks away. The rush to till the soils and create farmland had not been tempered by the cautions of evaluating soil types to identify those best suited for the plow. Many had believed that the open lands of the Midwest and West were all rich and able to produce crops to feed a growing America. Unfortunately, that proved costly.

A short 4 decades earlier, a very strong push from sport hunters to stop the slaughter of wildlife for commercial trade had begun. A future president of the United States, Theodore Roosevelt, was intimately involved in gathering like-minded hunters to educate Americans about the value of



With no cash to disburse, many banks closed.

Ducks Unlimited

their wildlife resources, and that those resources were indeed finite. Through their efforts to bring “fair chase” and responsible stewardship to the sport of hunting, laws were passed to ban commercial hunting as well as provide tools to assist state and federal wildlife enforcement, such as the Lacy Act and Migratory Bird Treaty Act. The Lacy Act made it a federal crime to violate hunting laws in one state and transport the illegally taken game over a state boundary to avoid prosecution. The Migratory Bird Treaty Act codified an international agreement to conserve and properly manage the hunting of ducks and geese, and to protect all birds that crossed national borders. But what happened next astounded even the most ardent supporters of conservation.

An editorial cartoonist from Des Moines, Iowa, Jay N. (Ding) Darling, had waged a war on the U.S. Army Corps of Engineers over their zeal to drain America’s “wastelands” and make them available for farming and other development. The wetlands that were the target of this crusade were, of course, extremely valuable to fish, wildlife and man. But at the time, that was not well understood.

President Franklin Roosevelt asked Mr. Darling if he would be willing to come to Washington and be the Director of the U.S. Biological Survey, the forerunner of the U.S. Fish and Wildlife Service. He challenged Darling to find a remedy for protecting lands important for conservation. Under Darling’s leadership, the waterfowl hunters of the United States petitioned Congress, during this devastating depression, to require that all duck and goose hunters purchase a stamp in order to harvest these migratory birds. On March 16, 1934, Congress passed the Migratory Bird Hunting and Conservation Stamp Act (Duck Stamp Act) which, for the first time in history, required a form of license from the federal government in order to hunt.

The price of the first stamp in 1934 was \$1. In the midst of the depression, \$1 could buy a lot of food. Sugar was 4.9 cents a pound, flour was 5 cents a pound, white potatoes were 1.9 cents a pound, and peas were 4 cents a pound. To a family trying to survive the hard times, sacrificing a dollar was not insignificant. However, the most important achievement of the Duck Stamp Act was to require that the funds collected by sale of the stamps go to on-the-ground

conservation of waterfowl habitat. This was the beginning of the “user pay” model for wildlife conservation that still today is the envy of the world. Since 1934, the duck stamp proceeds have conserved nearly 7 million acres of wetlands, grasslands and waterfowl habitat across the United States. But the story doesn’t end there.

In 1937, all hunters saw the value of Ding’s duck stamp and its influence on habitat conservation and decided to go one step further. There was a tax on firearms and ammunition, but it wasn’t helping restore the habitats so scarce during the Dust Bowl, nor was it helping to manage fish and wildlife in states that were struggling with very little financial support. So, in the tradition of asking to be taxed, hunters lobbied Congress to extend the levied tax on the sale of arms and ammunition, BUT with the caveat that the funds had to go to the state fish and wildlife agencies to support active management of state wildlife resources. Congress passed the Wildlife Restoration Act in 1937 and made the funds collected “permanent appropriations,” meaning they were not subject to control of appropriations committees of Congress and could not be used for any other purpose

Farms, and families, were devastated by the Dust Bowl.



Ducks Unlimited



Ducks Unlimited

Early Ducks Unlimited Project.

by the states receiving the funds. That same year, the group of waterfowl hunter-conservationists that had helped move both of these funding laws through Congress converged to form the fledgling conservation organization known as Ducks Unlimited.

Ducks Unlimited was founded in 1937 to conserve waterfowl populations by using new and evolving science that strongly supported protecting the nesting grounds of ducks and geese in Canada and the northern United States. From 1937 to 1982, all funds raised by Ducks Unlimited, a not for profit, were sent to Canada and used by Ducks Unlimited Canada to restore habitat in the important nesting grounds of Prairie Canada. As science evolved, it became clear that the birds needed a “round trip ticket”; they needed food and cover throughout their migration and not just on the nesting grounds. Ducks Unlimited began doing habitat restoration with numerous partners, including the U.S. Fish and Wildlife Service, in the United States and

Mexico in the 1980’s and has since conserved more than 6 million acres of wetlands and grasslands in the U.S. alone, and 15 million acres when viewed continentally.

As a simple conservation biologist who has spent more than 4 decades working to make a difference, I cannot say enough about the dedication of all who work to conserve and restore these gifts we have been given. The professionals I have had the privilege to work with over the years don’t have jobs, they have a calling. They are some of the most dedicated people I have ever met. But we all know our mission could not be accomplished if we were limited to public lands. As much as 65 percent of all fish and wildlife habitat in the United States is found on private lands. Most of those are working lands for grazing or farming operations—overseen by equally dedicated land stewards: America’s farmers, ranchers and other wildlife land managers. I am constantly amazed by the sincere, humble way in which these great conservationists talk

about the land as a part of their family, the joy they feel when they see the migration once again, and the anticipation of how they can improve the land to better take care of these beautiful creatures.

Do we harvest some of the birds we all help provide for? Yes. Much as the master of the vineyard selects a few bottles of wine for himself, then provides the rest for everyone else. But the real question is: “What would happen if the hunter conservationists suddenly stopped giving their time, energy and money to make the habitats better?” The answer is simple. This wonderful story of success would change to one of “the way it used to be.” I, for one, am extremely proud of the friends I have made who give their passion to mimicking the hand of the Creator. We know we can never accomplish the perfection of nature. But we are driven to try. And, by trying, we are making a difference... together.





Wildlife Conservation Models for Sportsmen and Sportswomen



Matthew C. Perry

Typical small levee to hold water for rice cultivation on Don Pablo Ranch with numerous birds on levee.

*Matthew C. Perry
Heritage Committee member,
Retired, U.S. Fish and Wildlife
Service*

The Don Pablo Ranch in northern Argentina represents an outstanding example of wildlife conservation and management seldom found in South America and rarely found in North America. The ranch was used for cattle production until it was purchased in 2008 by an American businessman and sportsman who converted the ranch to a productive wildlife management area, mainly for hunting and wildlife conservation. The owner and developer of this conservation model is Mr. Paul Tudor Jones, who is better known at Harvard Business School than in the circle of wildlife conservationists. Forbes business magazine estimates his net worth at 4.5 billion dollars in 2018.

Mr. Jones made his fortune from a career as a hedge-fund investor. He was willing to gamble on the future value of farm commodities before the growing season, when other investors were hesitant to make these gambles. His investment skills have been featured and described in numerous magazines, newspapers, international investment workshops, and as an example in college business classes. Little has been written about his wildlife conservation efforts as an avid sportsman.

His interest in hunting ducks and pigeons in Argentina led to a reconnaissance flight over potential habitat in the north central part of the country. He sent the manager of his Tudor Farms in Maryland, Dr. Ed Soutiere, to coordinate with a commercial hunting guide, Mr. David Denies, in Argentina. After weeks of aerial surveys, they found

a suitable large ranch and made contact with the owner. Several offers to purchase the land were presented, but Mr. Jones was only allowed to rent the property for 2 years. His interest in the land increased, and finally an offer was accepted to purchase 6,300 hectares (15,750 acres). The site is on the Corrientes River, a large river that drains the central portion of Corrientes Province, eventually joining the Parana River.

Aggressive management plans were initiated immediately to develop optimum wildlife habitat and decrease the footprint of cattle farming. Most cattle and all cats and dogs on the ranch were removed over a 2-year period. Many of the gauchos on the ranch not interested in wildlife were asked to leave, and some were given free housing in the local town. Mr. Jones supported assistance by his staff at

the ranch to improve a local rural school to aid in the transition period of the children of the gauchos. Ranch employees still visit the local schools and provide students with necessary supplies. Employees also maintain local dirt roads off the ranch with Mr. Jones' heavy farm equipment, so the children can get to school when the roads are in disrepair due to weather.

Management for waterfowl included creation of impoundments and flooding fields for rice production. Rice is not harvested but left in the flooded fields as food for ducks and other wildlife. Eleven species of ducks have been recorded, and during some seasons of the year, numbers of ducks approach 100,000. When government tax officials in Argentina became concerned that there was no sale of rice despite large purchases of rice seed, they made a visit to the ranch. They were surprised to learn that the rice was given to the ducks and not used for some illegal purpose in the distillery of alcohol! Initial rice management followed protocols used in commercial rice production. However, Mr. Jones stopped the use of insecticides when he learned that their application could impact ducks, especially rosy-billed pochard (*Netta peposaca*), that feed on insects.

Now more than 500 hectares (1,236 acres) of land are planted with high-energy seed crops to benefit wildlife. Some fields were planted with sorghum, millet, and sunflowers to provide food for doves and upland bird species. Efforts have been initiated to bring back some of the lost natural prairies that were degraded from overgrazing cattle. Other areas were planted with trees to provide roosting habitat for pigeons and doves.

The ranch boasts six native species of columbids (doves and pigeons) that are regularly seen in high numbers and provide excellent sport hunting. Some of the pasture land provides habitat for the spotted nothura (*Nothura*



Marcelo Prodel

Native pigeons flying over planted field of sorghum.



Marcelo Prodel

Nest of jabiru in pine plantation trees on Don Pablo Ranch.

maculosa), a ground-nesting quail-like bird called perdiz by the locals. Management focused on establishing the right amount of grazing to optimize populations. The rarer relative of the perdiz, the red-winged tinamou (*Rhynchotus rufescens*), was reintroduced to the ranch and is now doing well. Maintaining habitat for these two species involves large acreage of land and

a good balance between fire and grazing management. Hunting the two species requires a good dog, patience, and fast shooting.

More than 200 species of birds have been sighted and recorded on the ranch. Some of these species are rare along with some very interesting species that have nested, including a type of stork called the jabiru (*Jabiru mycteria*).

Interestingly a jabiru pair nested in a thick grove of pine trees planted as part of Mr. Jones dove and pigeon management plan.

Mr. Jones and a few close friends hunt the ranch for 2 to 5 days each year. No hunting occurs the rest of the year, and the 15 full-time employees continue to work to improve wildlife management with the resultant increased populations of most species of wildlife.

Mr. Jones realizes that when management of habitat is conducted for focus species of hunted wildlife, the non-hunted species also benefit. This is clearly apparent when the abundance of wildlife on Mr. Jones' ranch is compared to nearby ranches that continue to focus on cattle production.

Some rare mammals have been recorded on the ranch including the Geoffroy cat (*Leopardus geoffroyi*) that local ranchers had not been seen in decades, and which is at the northern extension of its known range. The unexpected sighting of a South American cougar (*Puma concolor concolor*) on a trail camera was an exciting discovery for the staff monitoring the wildlife for Mr. Jones. Several years after the first sighting of a cougar, the trail camera captured the female and her offspring, and now seven have been recorded in 3 years. During the last few years the ranch co-manager, Marcelo Prodel, assisted with the introduction of the giant anteater (*Myrmecophaga tridactyla*). This rare insectivorous mammal is doing well on the ranch and feeding on the large number of ants, mostly leafcutters, which occur on the ranch in dry upland areas.

Other rare or endangered wildlife considered for reintroduction on the Don Pablo Ranch include marsh deer (*Blastocerus dichotomus*), South American tapir (*Tapirus terrestris*), and the maned wolf (*Chrysocyon brachyurus*). These projects are conducted closely with the Conservation Land Trust (CLF) and based on the vision of Kristine and Douglas Tompkins, who worked



Courtesy of Marcelo Janik

South American cougar (*Felis concolor concolor*) and young at Don Pablo Ranch, July 7, 2016 – 8:37 PM.



Marcelo Prodel

Health check being conducted on giant anteater before being released at Don Pablo Ranch.

closely with Mr. Jones and the Don Pablo Ranch staff. CLF is also working on reintroduction of the jaguar (*Panthera onca*) and the Brazilian merganser (*Mergus octosetaceus*) on land directly north of Don Pablo Ranch.

Mr. Jones has a strong interest in research and has donated \$100,000 to \$250,000 per year to wildlife researchers in the United States and Argentina as part of a cooperative research program on his ranch. During an 11-year period (2008 to 2018), 119 satellite transmitters (PTT-100; Microwave Telemetry, Inc., Columbia,

MD, USA) were deployed on 6 species of ducks. The most recent telemetry on the ranch is being conducted on ringed teal (*Callonetta leucophrys*), which are nesting in some of the 300 artificial nest boxes established on the ranch. Female ducks are captured on the nest late in incubation and instrumented with transmitters in hopes of tracking the female and brood to determine most optimum habitat for this species.

Satellite telemetry is also being deployed on ring-necked ducks (*Aythya collaris*) on his newest ranch in Georgia. The

instrumentation of this diving duck species is done with implantable transmitters by a surgery-qualified veterinarian, Dr. Glenn Olsen. The surgery in Argentina was also done by Dr. Olsen on four species of ducks. In South America telemetry studies like these are rare due to the cost of the equipment (about \$3,000 per transmitter). In 2012, Mr. Jones donated \$25,000 to pay for researchers from throughout South America to meet at Iguazu Falls, Argentina, to share information about their telemetry studies and to learn about studies at Don Pablo Ranch.

In addition to being a sportsman and conservationist, Mr. Jones is also a generous philanthropist. He has donated millions of dollars to charities, and he established the Robin Hood Foundation in the United States. As its name implies, he “steals” from the rich and gives money to inner-city high schools preparing students for college.

He invites his wealthy friends to a banquet each year and, with friendly strong-arm tactics, raises millions of dollars. He makes all recipient schools accountable for the funds and withholds funding if results are not satisfactory. His skills with charity fundraising are as successful as his investment practices, and his success has been featured on the television show, “60 Minutes.”

Mr. Jones has established another ranch for wildlife in New York, and he recently donated his oldest ranch in Maryland (Tudor Farms) to a private preparatory school. He had attempted to sell the Maryland property for \$30 million, but when prospective buyers wanted to develop the land for condominiums, he terminated the sale. He instead decided to donate the farm to Young Life, a Christian organization specializing in helping the youth of America practice Christianity. Students learn both about God and the local ecosystem.

Limited hunting by wealthy donors to the school is allowed so that the original well-managed land could remain a conservation area. This act was greatly appreciated by the wildlife conservation community and the U.S. Fish and Wildlife Service, which manages the adjacent Blackwater National Wildlife Refuge.

Mr. Jones also owns a ranch in Zimbabwe where many endangered wildlife species are protected. When President Mugabe tried to expel all foreigners from Zimbabwe, Mr. Jones came up with a plan to protect the land and the wildlife and to keep property in his ownership. He agreed to fund a program to feed lunch to all school children in the area surrounding his ranch. Approximately 25,000 children now get a good lunch each school day, and the wildlife on the ranch remains protected.

He is an avid fisherman and has established properties in Costa Rica



Matthew C. Perry

Biologists capturing ringed teal from nest box as part of satellite telemetry study at Don Pablo Ranch.



Marcelo Prodel

Pair of ringed teal with brood of nine ducklings on Don Pablo Ranch.

and Colorado for fishing. Wherever he goes he uses his wealth to improve habitat for fish and wildlife. When restoration of rivers on his property was necessary, he contracted with Mr. David Rosgen to give him advice. Rosgen is the world's expert on river morphology and restoration and for many years has taught courses on these subjects at the Service's National Conservation Training Center in West Virginia. Mr. Jones' philosophy is, if you hire the best, you can expect the best results.

Mr. Jones' model is to make habitat optimum for the greatest number of species, as his experience has shown that when habitat is improved all species—from hummingbirds to elk—benefit, and the balance of good wildlife diversity along with high numbers is best for current hunting, but

also for the future of wildlife. Mr. Jones is a sportsman who values the challenge of the sport of hunting. He uses small gauge shotguns for waterfowl hunting and typically shoots only one shell at a time. His ranches are managed by employees who share his passion for wildlife at his facilities and work hard to maximize wildlife populations.

Hopefully, the passion Mr. Jones has for wildlife conservation as a sportsman will continue for many years, and wildlife will continue to benefit from the good habitat he has created. Money alone cannot produce wildlife, but it can help restore good habitat, and with good habitat, wildlife will respond and benefit future generations of sportsmen and women, nature lovers, and the public. The majority of humans worldwide

have not yet come to learn about the beauty and satisfying experiences that can be enjoyed from healthy wildlife populations. Good sportsmen like Mr. Jones are working to help increase the diversity and abundance of wildlife, which will benefit future generations of nature lovers.



Reference: <https://prd-wret.s3-us-west-2.amazonaws.com/assets/palladium/production/s3fs-public/atoms/files/ArgentinaBooklet-2011.pdf>



The FWS Retirees Association Welcomes Retirees and Retirees-in-Training

By Jerry Grover, Board Member Emeritus and Heritage Committee At-Large Retiree

U.S. Fish and Wildlife Service (Service) retirees who cared deeply about the Service's mission gathered together to create the non-profit U.S. Fish and Wildlife Service Retirees Association. Members stay connected with others who care, maintain friendships with their colleagues, make new friends with similar interests, travel together nationally and internationally, volunteer to support fish and wildlife conservation, help the Service preserve its rich heritage, or otherwise stay connected to the Service.

Retiree Reunion – November 2019

A highlight among retirees are national reunions hosted about every 18 months in a variety of locations in the United States. More than 100 retirees and more than 30 Service employees enjoyed the program and field trips in Lincoln City, Oregon in May 2018.

Retirees and retirees-in-training are welcome to join us at our next reunion November 10–14, in Annapolis, Maryland. In addition to the regular program, which includes a banquet dinner and the Heritage Committee Award, reunions always include a field trip to a Service facility or project area. The Heritage Committee also has a meeting to coincide with the reunion, and attendees are welcome to attend the day-long meeting too.

Helping Field Stations Celebrate Milestone Anniversaries with Matching Grants

The Association awards small matching grants to Service Friends Organizations to help support major anniversary events that promote the rich heritage and mission of the Service.

Supporting Retirees' Volunteer Work with Mini-Grants

Retirees working at their favorite field stations can identify small project needs and apply for funding to purchase materials or meet other needs to complete a project at the site related to their volunteer work.

Learn more about the Association's grant programs at <https://www.fwsretirees.org/Support.html>

Preserving Conservation Heritage

It didn't take long after the Service's Heritage Committee was established to guide the preservation, understanding and appreciation of the Service's unique history and values in natural resources conservation, scientific research and management to realize it would be impossible without recognizing the role of its most important asset—its people, both current and retired. With the effort of three retiree Committee members, Jerry Grover, Denny Holland and Jerry French, the Association was established as a chartered organization with 501(c)3 tax exempt status. The Association dovetails with the purposes of the Service and its Heritage Committee. They support the Service's oral history program to preserve the Service's heritage through the voices of its

employees. They help identify and preserve historical information and artifacts that are important in understanding its heritage. In addition to supporting field sites, members serve in designated roles on the Service's Heritage Committee. And, they are contributing to planning to support the field in celebrating the Service's 150th anniversary in 2021.

Association Membership

Anyone can ask to be in a database to receive Association newsletters and other notices. Membership is open to any Service employee or retiree, including their spouses or partners. It's free for the first year. Dues-paying members enjoy voting and other benefits. To learn more about the Association, become a member, or for reunion updates, visit <https://www.fwsretirees.org/>.



From the Archives

Snowshoes belonging to Alaskan biologist Calvin Lensink (1927-2009) housed in the U.S. Fish and Wildlife Museum/Archives at the National Conservation Training Center.

Lensink spent 30 years working for the U.S. Fish and Wildlife Service protecting wild places and wild life in Alaska. Serving as a waterfowl biologist, refuge manager and project leader, Lensink was responsible for important waterfowl protections and refuge expansion in Alaska. These snowshoes were instrumental during his many journeys to scout out remote Alaskan waterfowl habitat.

■



Oral History Program

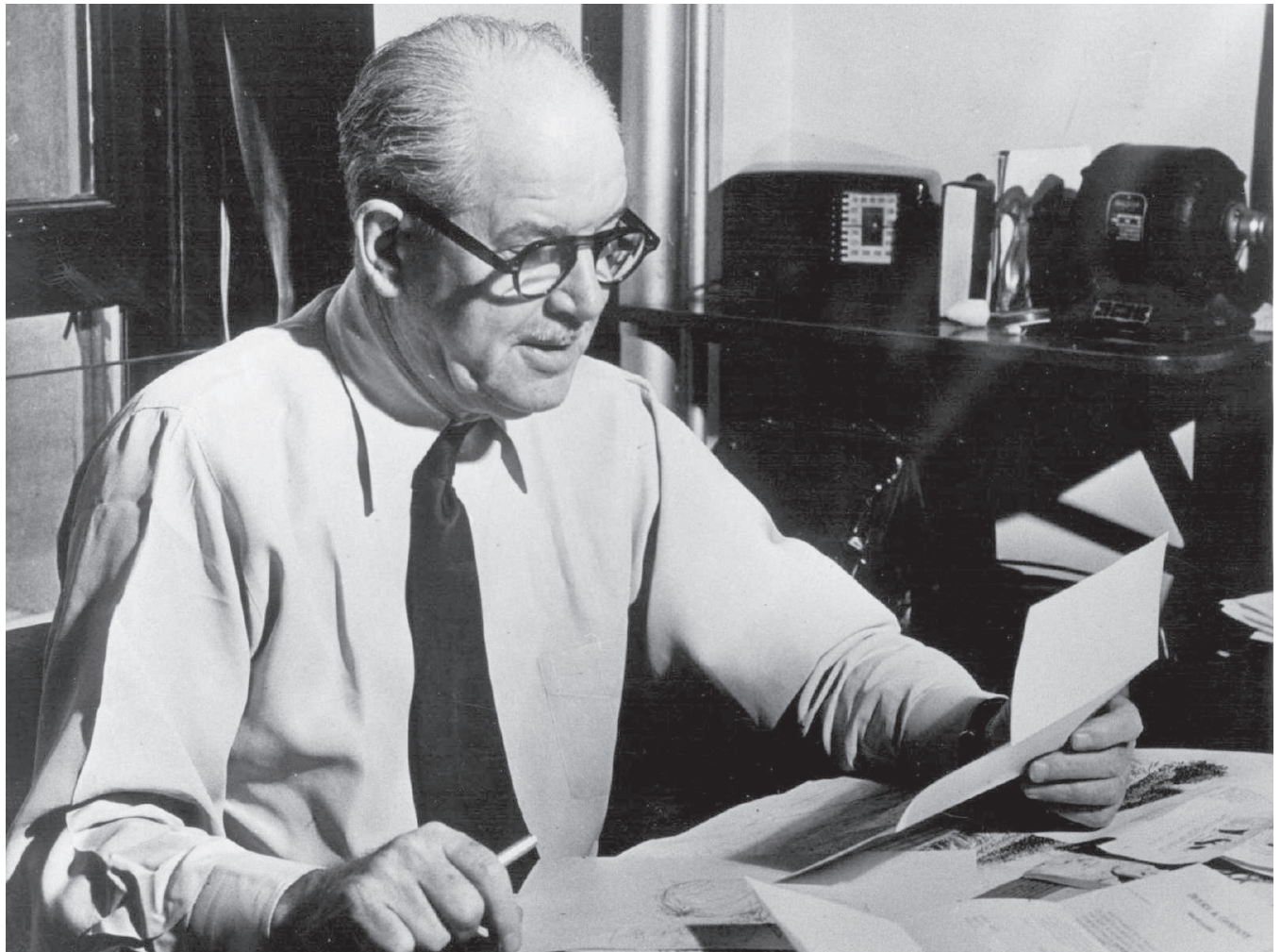
The U.S. Fish and Wildlife Service recognizes the rich history and heritage of the Service and the many contributions of employees and other to the mission of the Service. The Service has an oral history program to acknowledge and record these stories. To learn more, visit <https://nctc.fws.gov/history/OralHistories.html> (more resources coming soon). Here's an excerpt from Kip Koss, J.N. "Ding" Darling's grandson.

Mr. Kip Koss Speaks about his Grandfather, J.N. "Ding" Darling (Summer 2003)

I did use the word "hunters" there. I'd just like to make a little comment on that. Hunters, vis-à-vis conservation; there have been times during my association with the conservation movement that I was, let's say, nearly put on the defensive by people who were rather incensed to learn that Darling was a hunter as a younger man. It's with experience and more understanding of the conservation movement that I have come to realize that really, a

conservation movement I believe sprung from the hunters! These were the folks that were out there. These were the folks that were seeing and recognizing the changes for what they were. They did have the initiative to do something about that. When somebody from the Sierra Club, or whatever, is critical of the hunters, certainly if they are talking about over hunting and that sort of thing, there is some justification. But the hunters and sportsmen and outdoor types should get a lot of credit for the conservation movement as it exists today.

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SYNOPSIS OF GAME AND FISH LAWS OF THE STATE OF NEW MEXICO

(In Effect March 18, 1915)

NOTE—Sec. 6 of the Act.—Game Fish as defined by this act are, small and large mouthed Bass and Speckled Trout, of whatsoever species or variety; also Crappie and Ring Perch.

OPEN SEASON—GAME

Deer With Horns. (horns to accompany carcass at all times) limit one deer. North of thirty-fifth parallel of North latitude, from October 16th to November 5th of each year. And South of said thirty-fifth parallel from October 25th to November 25th of each year.

Tassel-Eared Gray Squirrels. From June 1st to November 30th of each year.

Grouse. From September 16th to November 25th of each year. Limit, 5 grouse in one calendar day.

Wild Turkey. (classed as big game) North of the thirty-fifth parallel of North latitude, from November 1st to December 31st of each year, and South of said thirty-fifth parallel from October 25th to November 25th of each year. Limit, 3 in possession in any one calendar day.

Native or Crested, Messina, California or Helmet Quail, from October 25th to December 31st of each year. Limit, 20 in possession in one calendar day.

Doves, from August 16th to September 30th of each year. Limit, 20 in possession in one calendar day.

OPEN SEASON—FISH

Trout, Large and Small Mouth Bass, Crappie and Ring Perch, from June 1st to November 25th of each year. Limit: **Trout,** 10 pounds in possession in one calendar day; size limit 6 inches. **Bass,** 15 pounds in one calendar day; size limit, 7 inches; **Crappie,** 10 pounds

(OVER)

*Synopsis of New
Mexico Game and
Fish Laws (in effect
March 18, 1915)*

Courtesy of Craig
Springer, U.S. Fish
and Wildlife Service

in possession in one calendar day.

"SEC. 12. No person shall at any time shoot, hunt or take in any manner any wild animals or birds or game fish as herein defined in this State without first having in his or her possession a hunting license as hereafter provided for the year in which such shooting, fishing or hunting is done. The presence of any person in any open field, prairie or forest, whether enclosed or not, with traps, gun or other weapon for hunting without having in possession a proper hunting license as herein provided, shall be prima facie evidence of the violation of this section. Hunting licenses shall be issued by the county clerks when duly authorized by the State Game and Fish Warden, and such deputies as may be designated for that purpose by the State Game and Fish Warden. **None of the provisions of this act shall require any resident of this state to obtain or have a license to fish for trout.**"

LICENSES.

Resident, big game, bird and fish.....	\$ 2.00
Non-resident, big game, bird and fish.....	30.00
Resident-Alien, big game, bird and fish.....	30.00
Non-resident-Alien, big game, bird and fish.....	55.00
Non-resident bird license.....	10.00
Resident, big game.....	1.00
Resident, bird license.....	1.00
Resident, General, big game and bird.....	1.50
Non-Resident, big game and bird.....	25.00
Resident-Alien, big game and bird.....	25.00
Non-resident-Alien, big game and bird.....	50.00
Non-resident fishing license	5.00
Resident fishing license.....	1.00

All game or fish offered for shipment within the State of New Mexico must have attached thereto a Transportation Permit to comply with the law.

TRINIDAD C. de BACA.

State Game and Fish Warden,

Santa Fe, N. M.



Reflection

A Reawakening of the Soul

*Tony Rieth
Green Bay Fish and Wildlife
Conservation Office, U.S. Fish and
Wildlife Service*

The outdoors has always been a vital component of my life. As a child, hard work at home was rewarded with a weekend fishing trip. As a young adult, first dates were usually in a boat or somewhere out in the woods. And, a duck blind made one heck of a good place to find clarity amongst confusion as I navigated graduate school. I've seen waterfalls in Washington state, watched the sun set from the Sandia Mountains in Albuquerque, New Mexico, woke up to the sounds of howler monkeys and scarlet macaws in Costa Rica, and last year I had the opportunity to watch my beautiful daughter turn into a hunter as she harvested her first squirrel. These were all amazing adventures that left an impact on my soul. Memories burned into my mind as firmly as etchings on a tombstone. And it is memories like the ones just listed that are what inspire me to protect and conserve our natural resources. Without conservationists, many of these memories would never have happened.

I turned 30 this last year, bought a house, and celebrated my fifth year working for the U.S. Fish and Wildlife Service. These are all major milestones in my life, but I couldn't help but feel a little stagnated. My bucket list of places to visit grows daily, but not as fast as my list of responsibilities does. Adventure comes as easy as walking out my front door, but disconnection from "the real world" is interrupted by a phone call or the



Copper Harbor, Michigan.

Tony Rieth/USFWS

end of a 3-day weekend. Something more was needed.

Early in the year, I made plans to take a week vacation in August but hadn't settled on what to do or where to go. Life got busy, and mid-July rolled around with nothing decided. That all changed with a simple phone call from a friend I hadn't seen in a while. "Tony, what's up? Haven't seen you in a few years."

"Life's happening here, Mark. How about you?"

"Man stuff is busy, but I've got a question for you. In 4 weeks, five of us are going to Isle Royale for an 8-day canoe trip, and we need a sixth man. You're going to catch more fish than you ever have. Want in?"

Shell shocked and dumbfounded, I was shaking. Isle Royale—for real?!? It's always been on my

list of places to go. For 4 weeks, I packed and repacked my gear. Fearful of forgetting something needed, I constantly went over my gear. I bought a new sleeping bag, borrowed a backpack and sleeping pad from friends, and debated which lures would be worth their weight in my gear bag.

Go Time...

After an anxious drive to Copper Harbor, the crew met up and introductions were made. Drinking beer and chowing down on pizza, we huddled over a map. Where would we go, what would we do? Three of the crew had been here before. They knew the lay of the land, which lakes had phenomenal fishing, and campsites hikers couldn't reach so we would be less likely to see another person. Early the next morning we boarded the ferry. Watching land disappear on the horizon, a peace started to settle in.

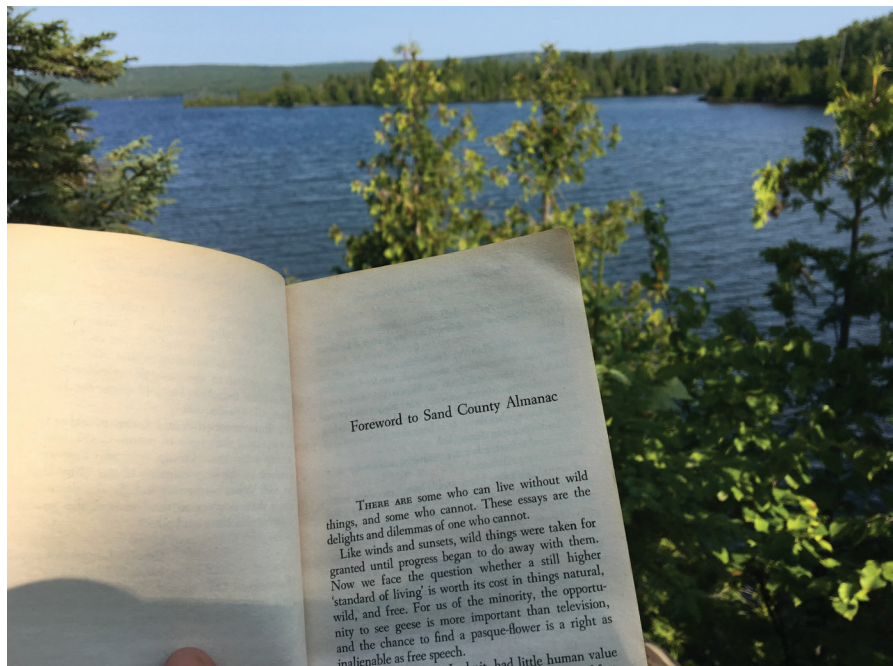
After the mandatory briefing by the National Park Service, we jumped in our canoes. Full of energy and excitement, we made ambitious plans to paddle 14 miles on the outside of the island to get to Lake Whittlesey by nightfall. Along the way we got sidetracked by a bull moose feeding in a bay. Yes—a moose! The first one I ever saw in the wild; time to check that off the bucket list. Paddling in the main lake was tough, the wind was in our face, and we battled 2-foot waves. We were just three lonely canoes in the middle of nowhere. Staring at the jagged shoreline, my paddle dug into the water for the fifty-thousandth stroke, and I realized I had completely zoned out for at least an hour. Not a single thought had crossed my mind, not once—and I started to laugh, the kind of laugh that fills your belly, stretches into your lungs, and makes you feel good from head to toes. I had found what I came looking for.

Nightfall came, and I was serenaded to sleep by the call of loons just outside my tent. The moon hung high and bright in the sky, and I had my best night of sleep in a year. I awoke to five other guys scrambling around in the early morning light. What was the cause for the commotion? Well, bragging rights for the trip goes to the man who catches the first fish. On his third cast, Mark quickly put that to rest with an 18" walleye that not only got him the title of best fisherman, but also filled up his lunch plate. Fishing was great that day. Brendan, my canoe partner for the week, and I caught dozens of walleye, pike and perch. We kept a giant stringer full and enjoyed a hearty meal while basking in the sun. All six of us broke camp and canoed and portaged our way to home for the night—a rocky spit separating Wood Lake from Siskiwit Lake. The moon and the clouds put on another spectacular show that night, and I'm pretty sure every one of us fell asleep gazing up at the sky.



Brendan Biller/USFWS

Tony with a stringer full of northern pike destined for shore lunch.



Tony Rieth/USFWS

"Like winds and sunsets, wild things were taken for granted..."
— *Sand County Almanac*

A cup of coffee, a great book, and a beautiful view overlooking Siskiwit Lake was a wonderful start to the day.

The next morning, I found a rocky outcropping. I grabbed my coffee, planted myself overlooking Siskiwit Lake, and gathered inspiration from *A Sand County Almanac*—well worth its extra weight in my backpack. With nothing but time on my hands, contemplation set in. There we were, a rag-tag group of guys searching our souls and getting away from life for a while.

My companions were varied: Mark is a busy father and husband; Nate got married a week after we returned home; Pal is a chef who lives in Colorado and logged over 100 days of boarding time in 2016 by sleeping in his truck bed chasing snowstorms; Brendan is a do-it-yourself kind of guy who builds log homes and runs an Alaskan sawmill in his spare time;



Tony Rieth/USFWS

The clustered crew gathers for a little R&R at their campsite on Lake Richie.

and Zack, a chef who recently went through a divorce. And that leaves the last member of the crew, me—a single father who had recently broken up with his fiancé. To say I was crushed is an understatement. It had been 5 months, and I was still hurting. I had lost weight, found it hard to concentrate, and had difficulty finding joy in life. I was struggling like I never had before. I was able to stem the tide by staying busy at work, hanging out with friends, and spending time with my daughter, but I hadn't found the time or the way to heal. As I set my book down, tears started to run down my face, and all the bottled up hurt and pain began to leave. And as quickly as the pain left, the joy entered, and for the first time in months, I felt good, I felt better. On that rocky outcrop in the middle of nowhere I realized that we were all on the island for different reasons, but all looking to nourish our souls in nature.

The rest of the week was a whirlwind of amazing adventures. We camped at a new lake every night. I caught more fish than I ever dreamed I would. We were blessed to stumble on a bull moose feeding 20 yards from us and watched him until the wind blew our canoes away. We heard a wolf howl in the dead of the night—something that may never happen again on Isle Royale. I found out that I can eat a lot of thimbleberries and blueberries, and they work wonders on making plain oatmeal into a gourmet breakfast. Sunrises and sunsets are best enjoyed with friends, and after a week of dehydrated meals and fish, nothing tastes as good as chips and ice cream from the visitor center.

To say I had fun would be an understatement. This trip was more than a vacation for me. This trip was a reset on life. Through nature I find joy and happiness. It helps define who I am and who I will be. This trip helped remind

me the reasons I get up and go to work every day and why the work I do is important and meaningful to the American public. As a conservationist, I realize that people need natural places to fish, hike, hunt and camp so that they can relax, de-stress, and sometimes even heal.

Plans are in the works for a return trip this year, and I can't wait to go back to the island in the middle of nowhere. My soul needs another reawakening...





Heritage Committee Mission and Members

U.S. Fish and Wildlife Service Heritage Committee Chartered 1998

The mission of the Heritage Committee is to preserve the cultural heritage and history of the U.S. Fish and Wildlife Service, reinforcing the mission of the agency to ensure that fish, wildlife, plants, and their habitats are preserved for the continuing benefit of the American people.

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Waterfowl hunt at Bear River Migratory Bird Refuge, Utah (1946). Photo by W. F. Kubichek/USFWS.